Understanding Github Technology

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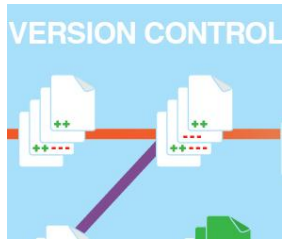
KEDATA

Pre-knowledge....

Before understanding Github Technology

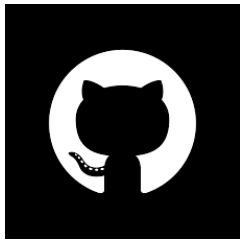


Version Control System

Management of changes to documents, computer programs, large web sites, and other collections of information

Git

Distributed Version Control System, a *command line* tool



Github

Provides a web-based graphical interface that works on top of Git

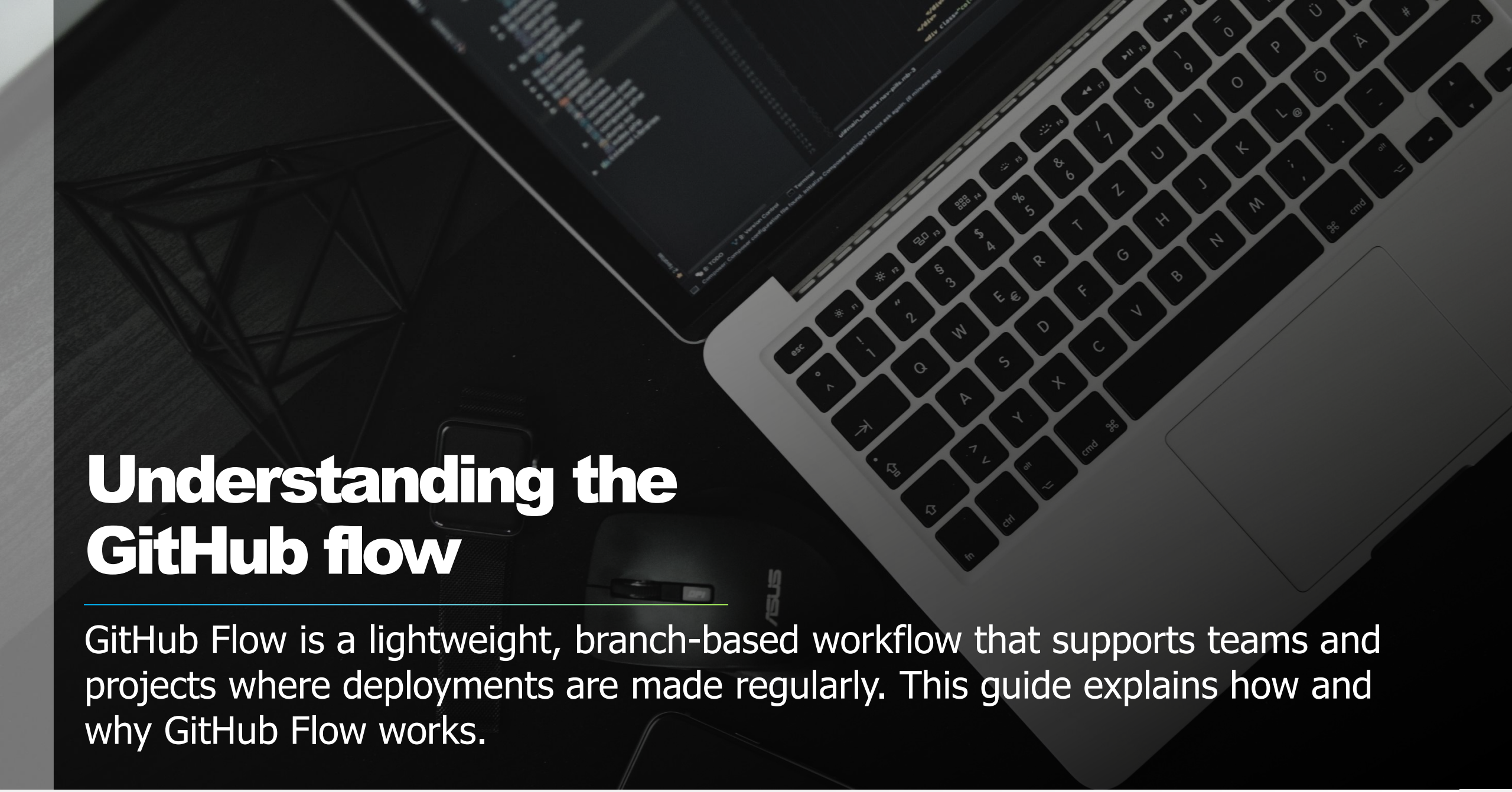
What is Git?

Git is an open source **distributed version control system**. It is mainly used for source code management in software development. It is a *Command Line Interface* (CLI) tool and can be mastered easily.

How it works?

That’s a simple definition but there’s a **whole lot** going on behind the scenes.

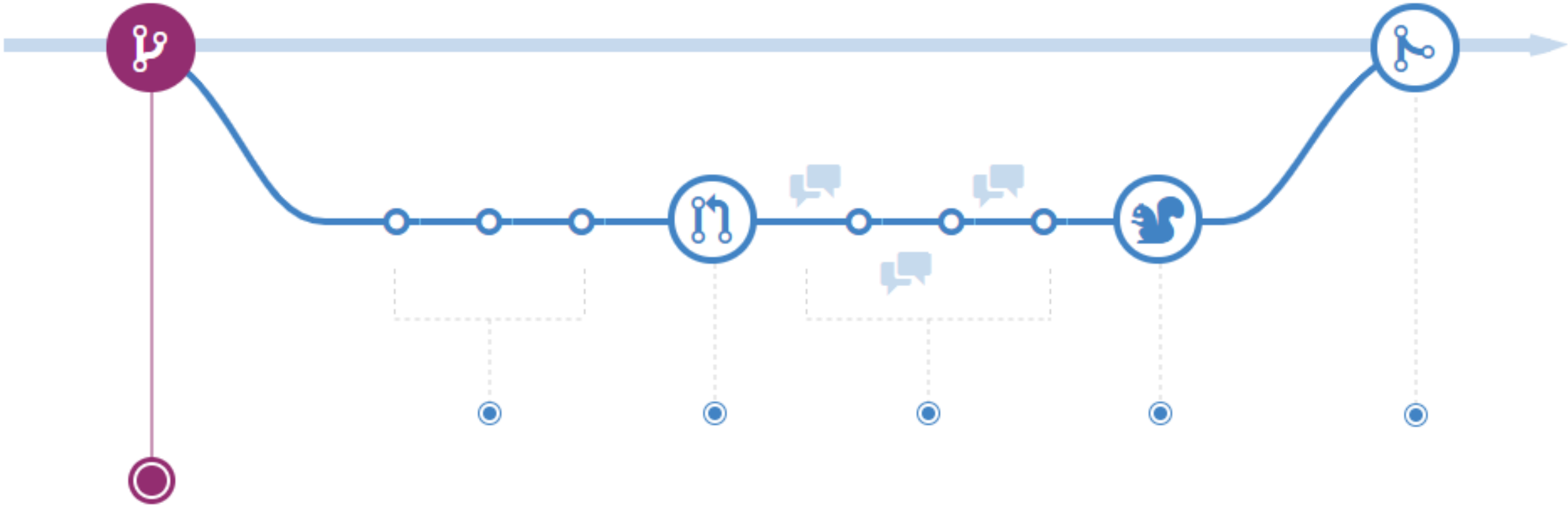
1. **Create a new repository** - You start by creating a repository which will be the place where you store all your files.
2. **Workflow** - Your local repository consists of three "trees" maintained by git.
   a. The **first** one is your `Working Directory` which holds the actual files.
   b. The **second** one is the `Index` which acts as a staging area.
   c. The **third** `HEAD` which points to the last commit you've made.
3. **Add & commit -** You can propose changes (add it to the Index) using git command **add**. This is the first step in the basic git workflow. To actually commit these changes use another command **commit.**



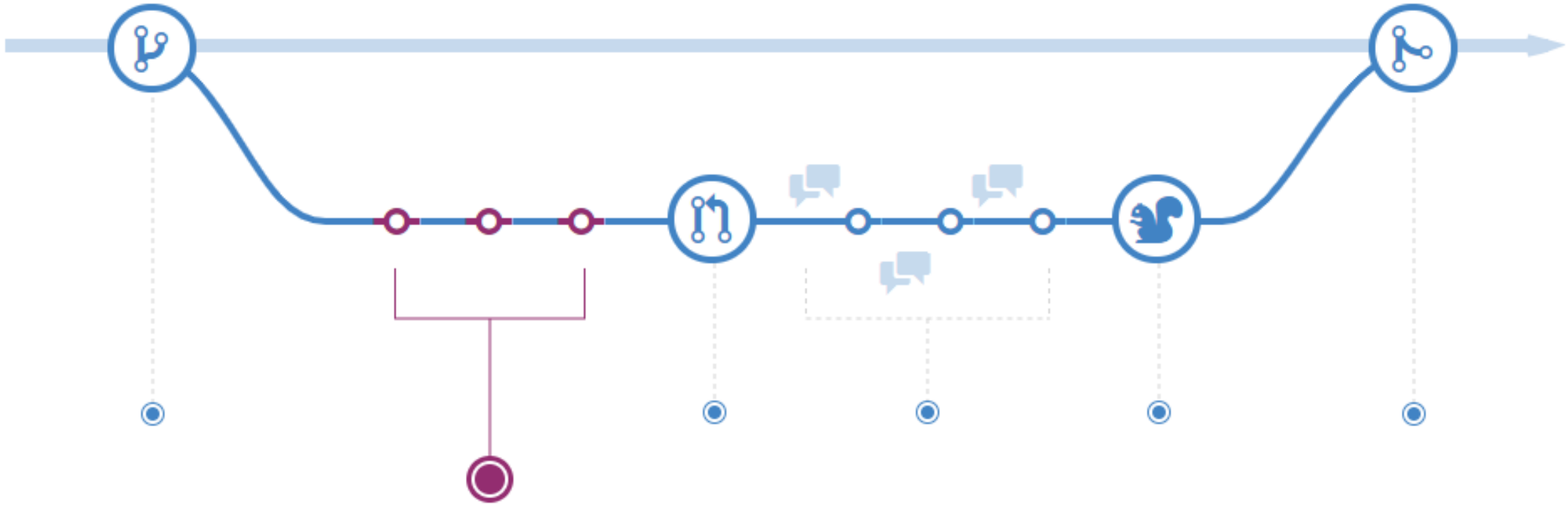
Understanding the GitHub flow

GitHub Flow is a lightweight, branch-based workflow that supports teams and projects where deployments are made regularly. This guide explains how and why GitHub Flow works.

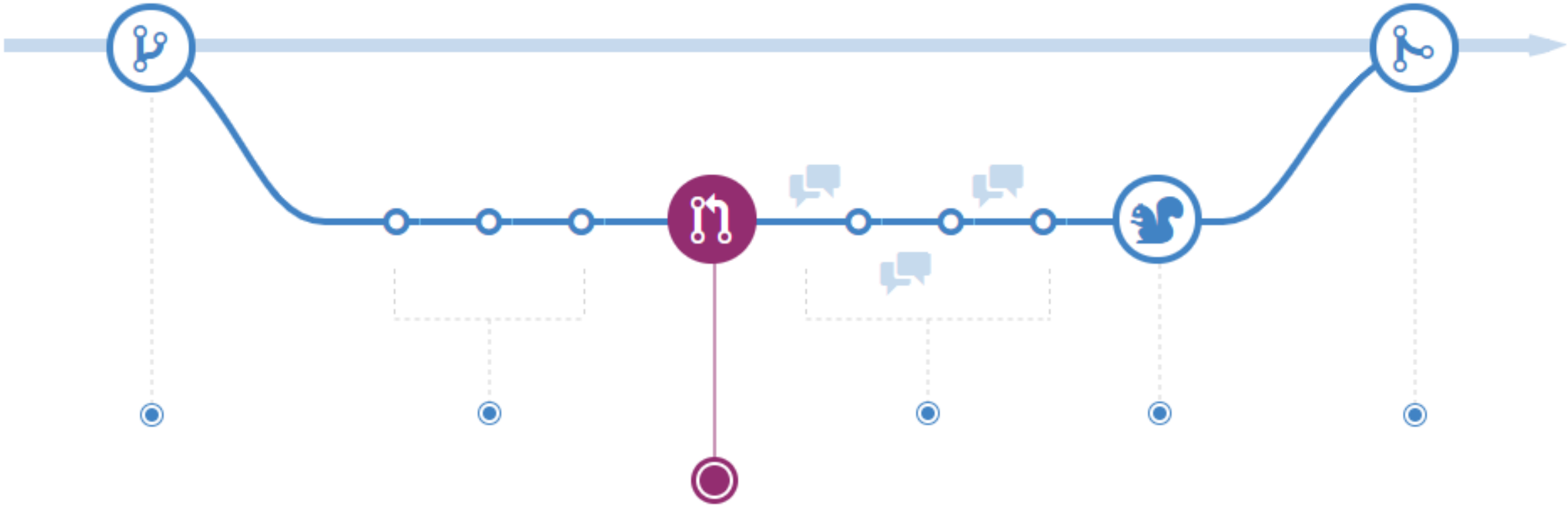
Create a branch



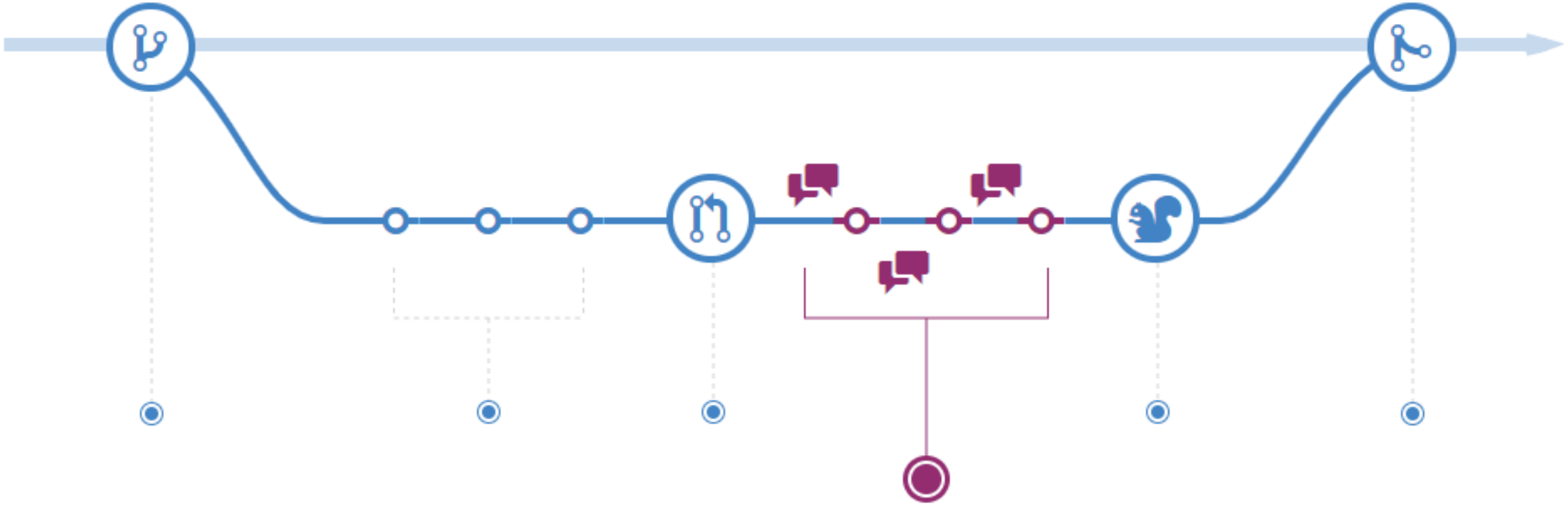
Add commits



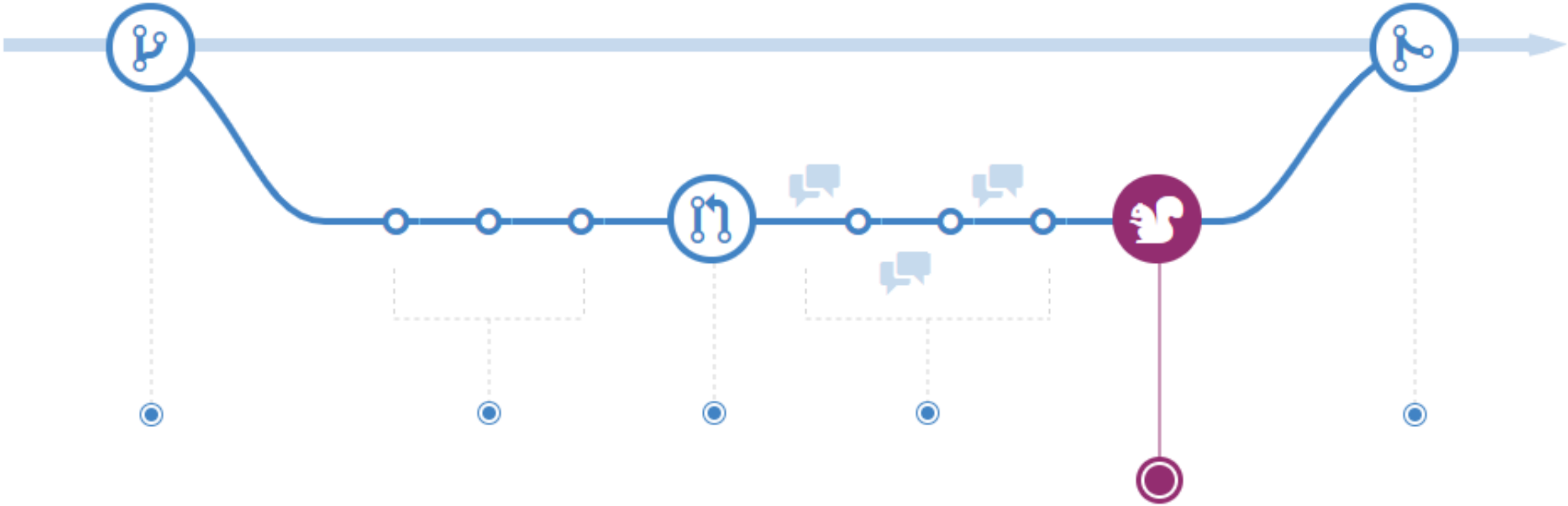
Open a Pull Request



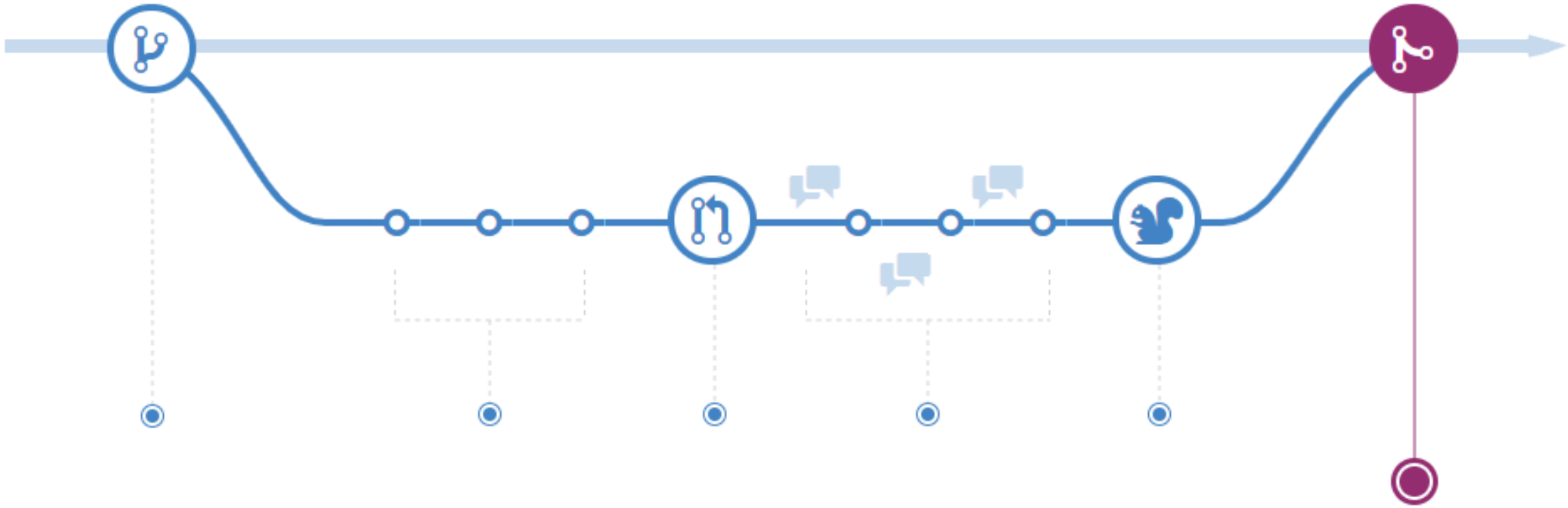
Discuss and review your code



Deploy



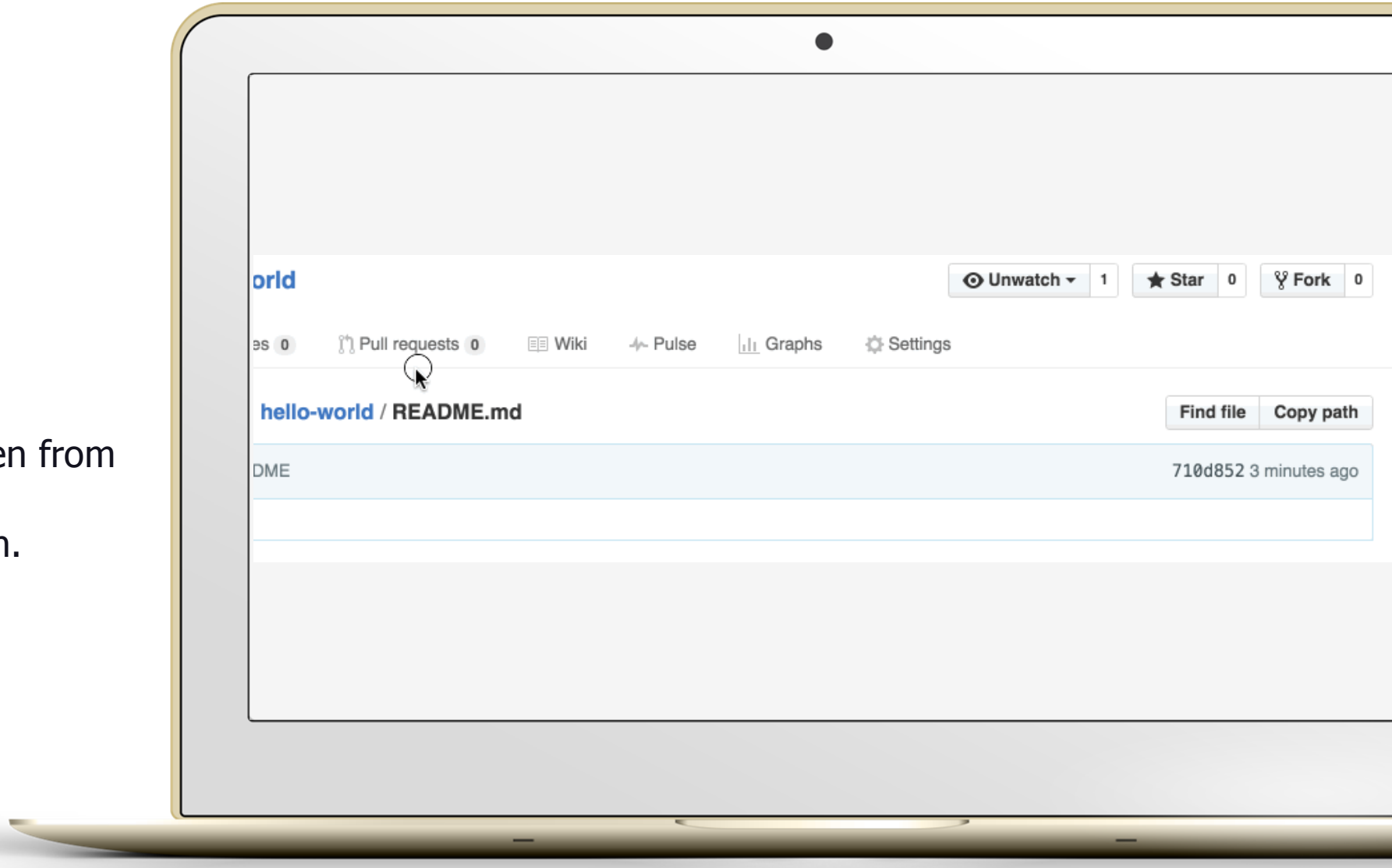
Merge



Open a Pull Request for changes to your code

Pull Request

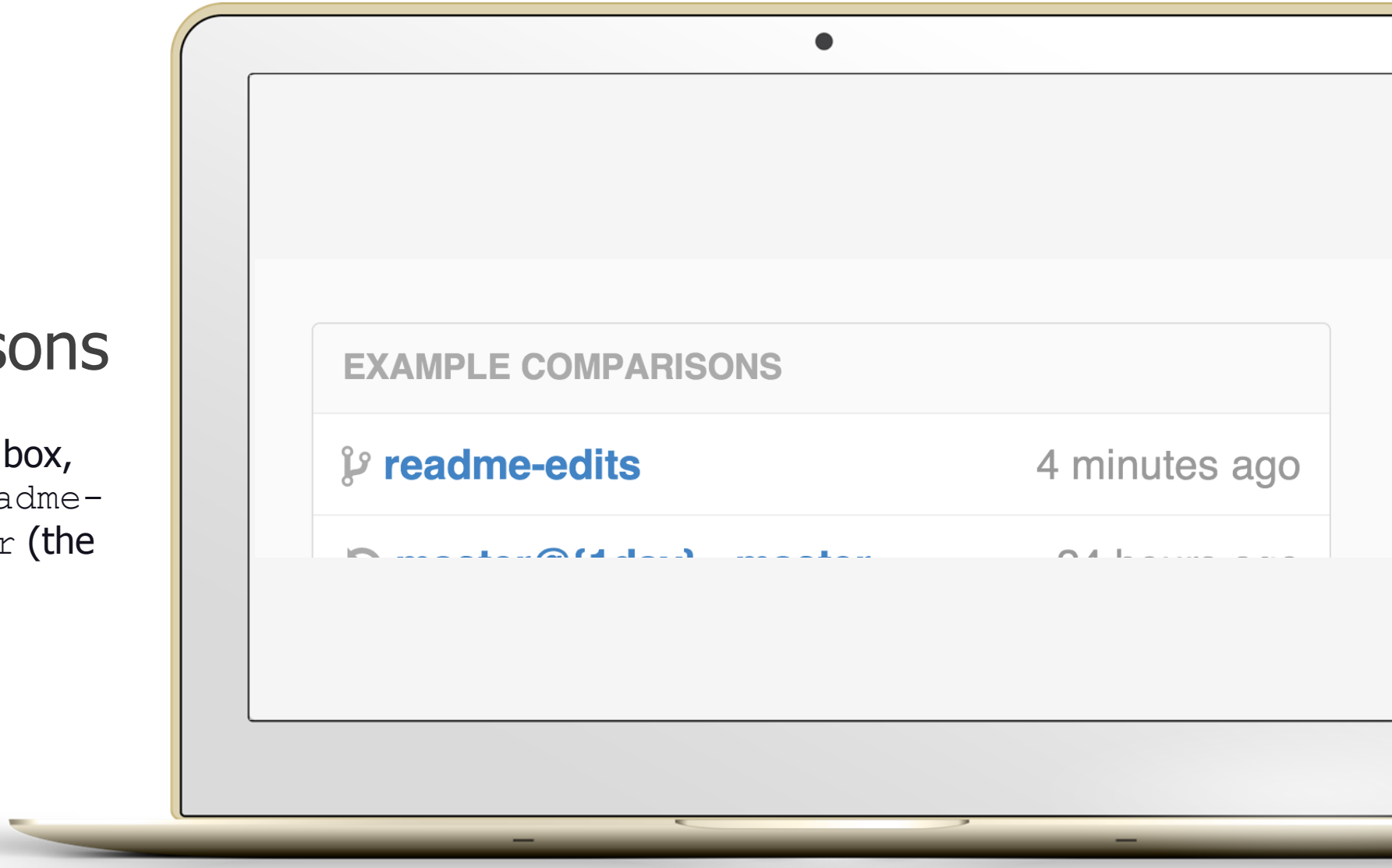
Click the **Pull Request** tab, then from the Pull Request page, click the green **New pull request** button.



Open a Pull Request for changes to your code

Example Comparisons

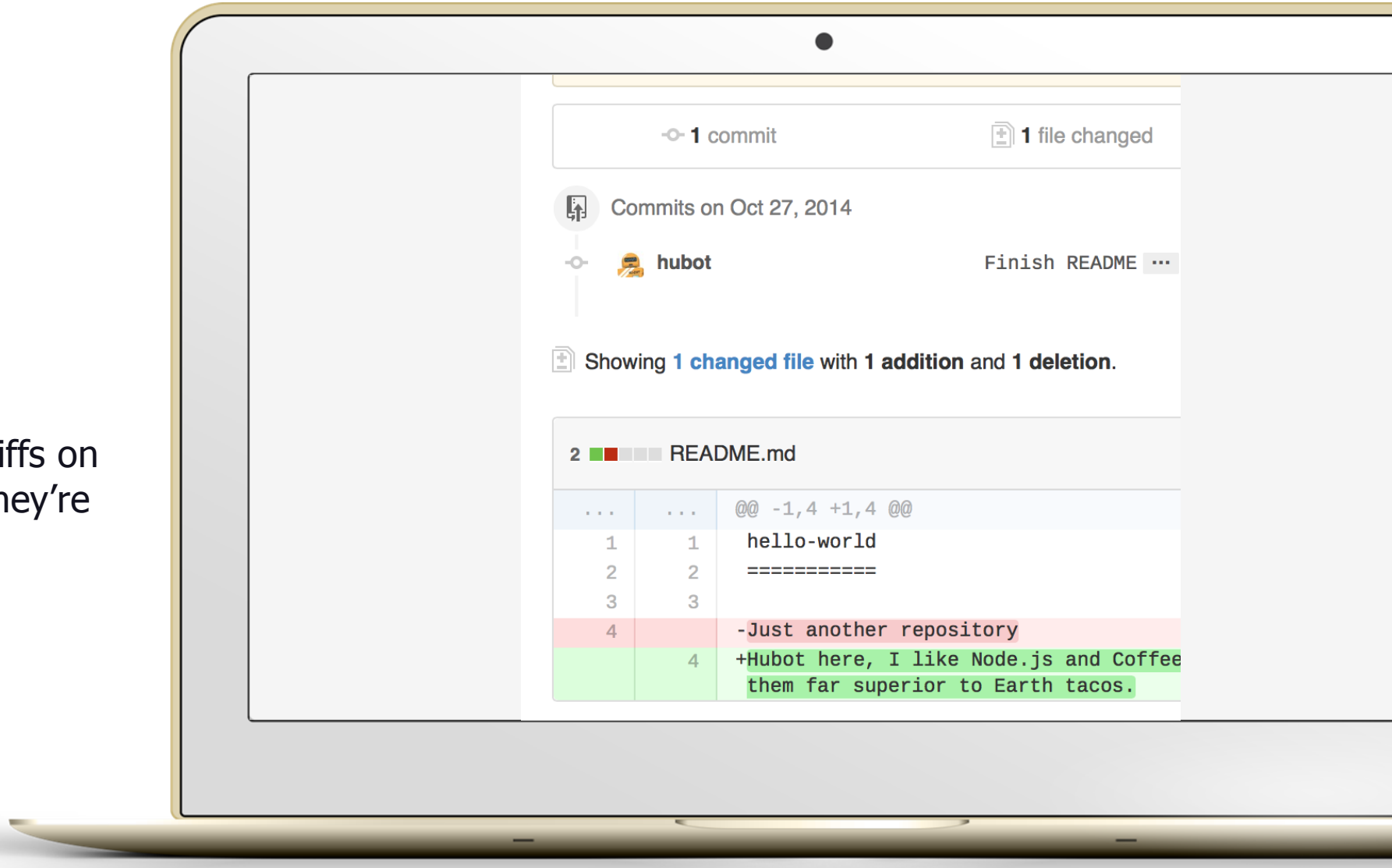
In the **Example Comparisons** box, select the branch you made, `readme-edits`, to compare with `master` (the original).



Open a Pull Request for changes to your code

Look over your changes

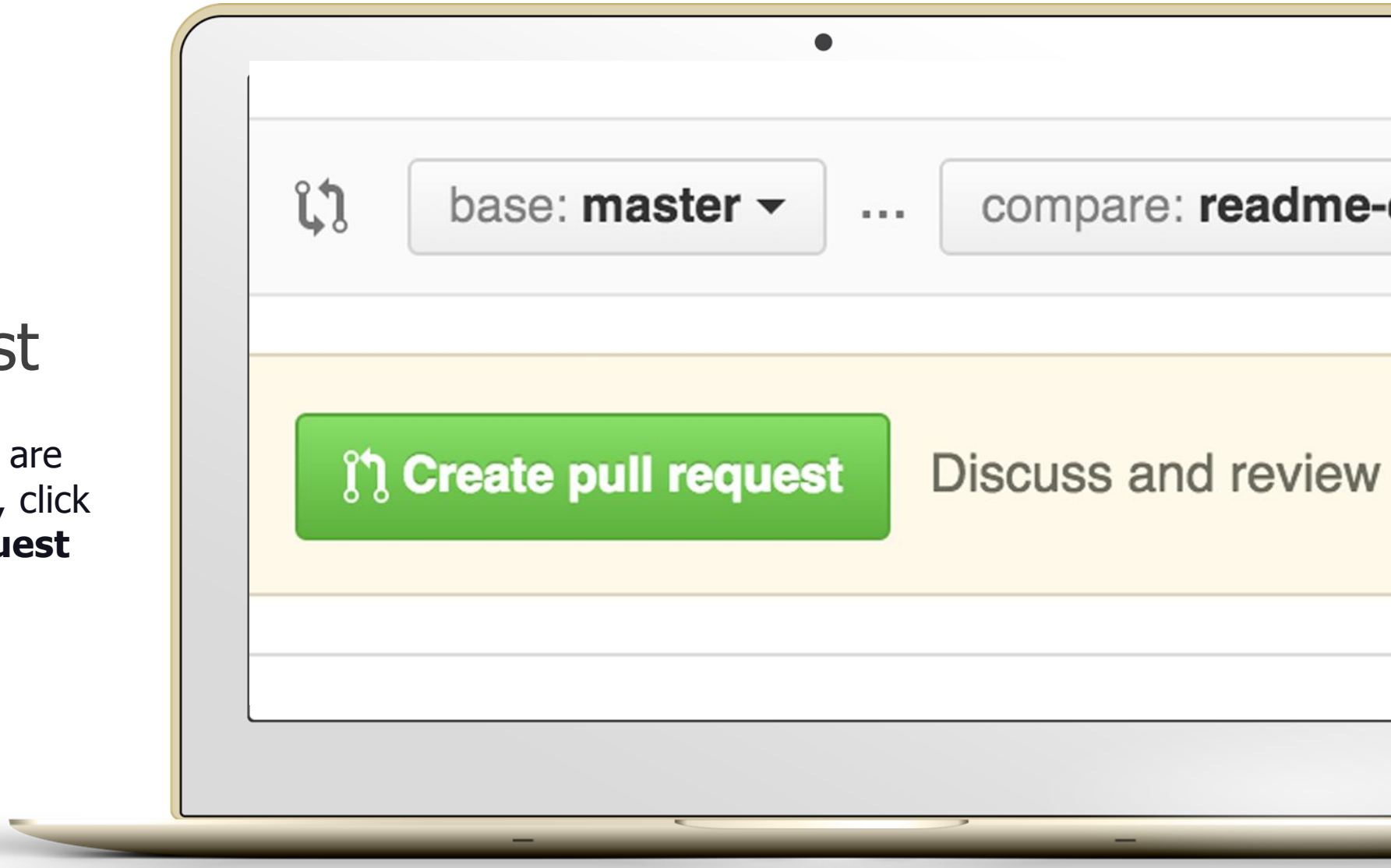
Look over your changes in the diffs on the Compare page, make sure they're what you want to submit.



Open a Pull Request for changes to your code

Create Pull Request

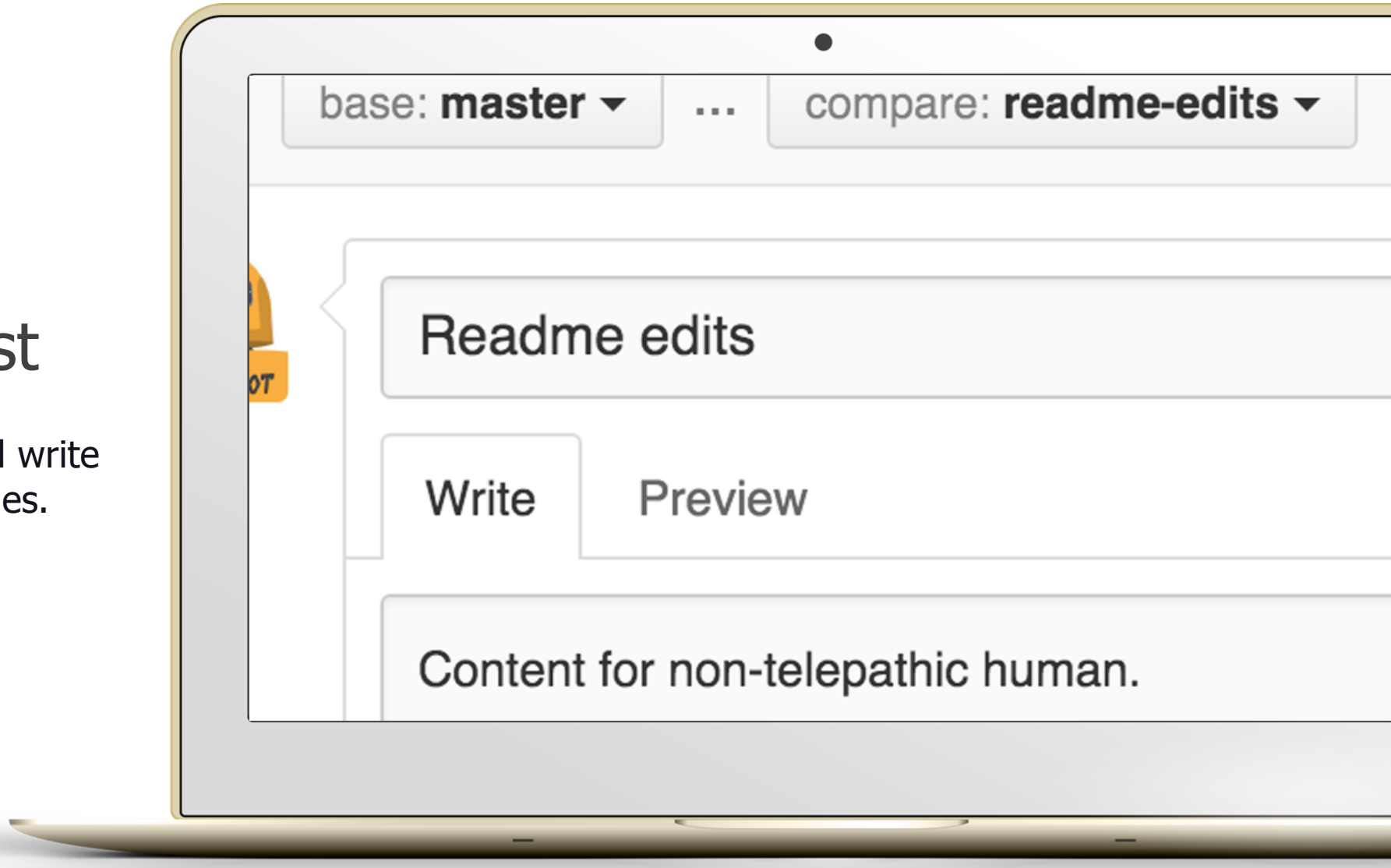
When you're satisfied that these are the changes you want to submit, click the big green **Create Pull Request** button.



Open a Pull Request for changes to your code

Create Pull Request

Give your pull request a title and write a brief description of your changes.



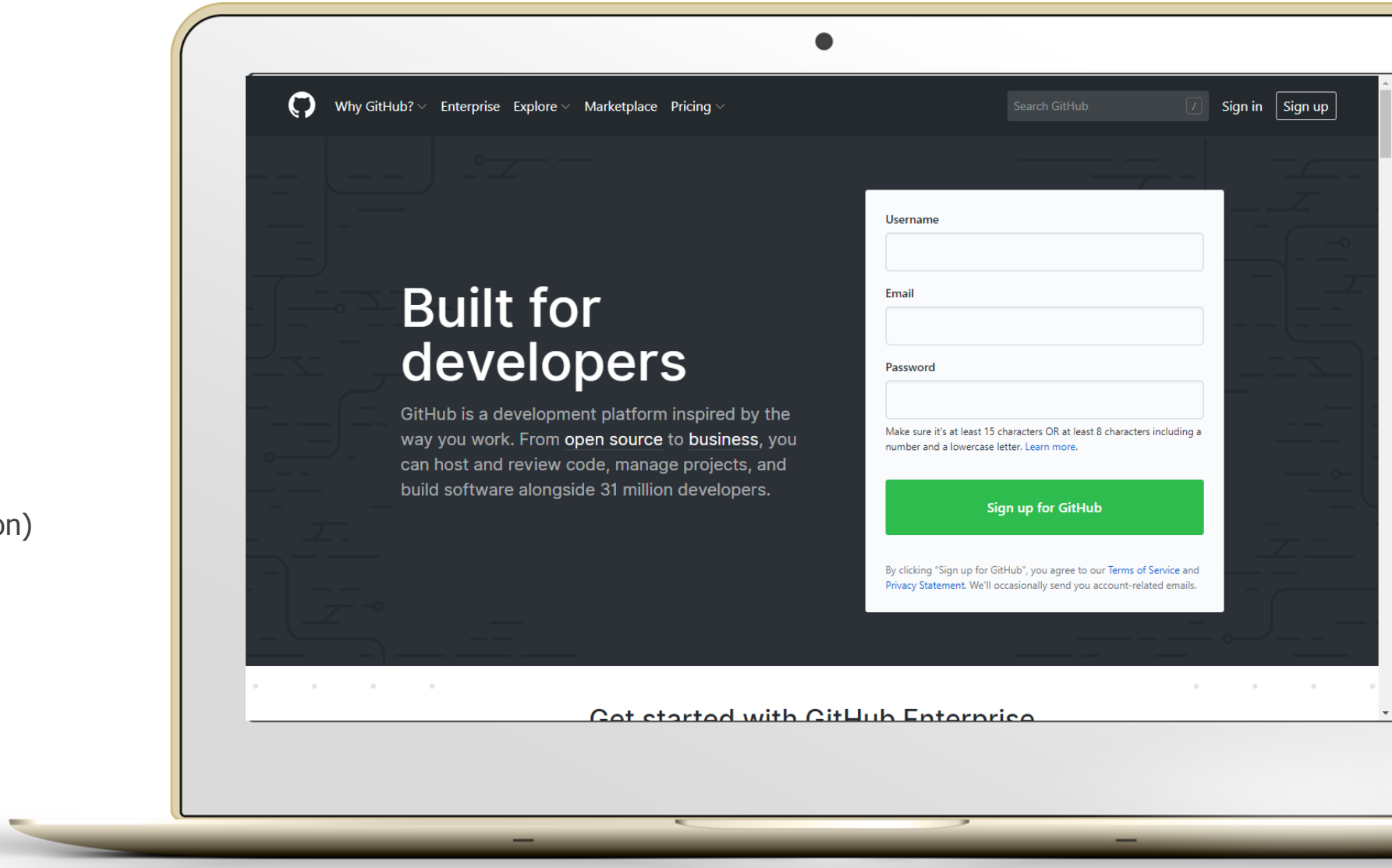
Integrate RStudio with Github

Create Github account

Open this site:

https://github.com

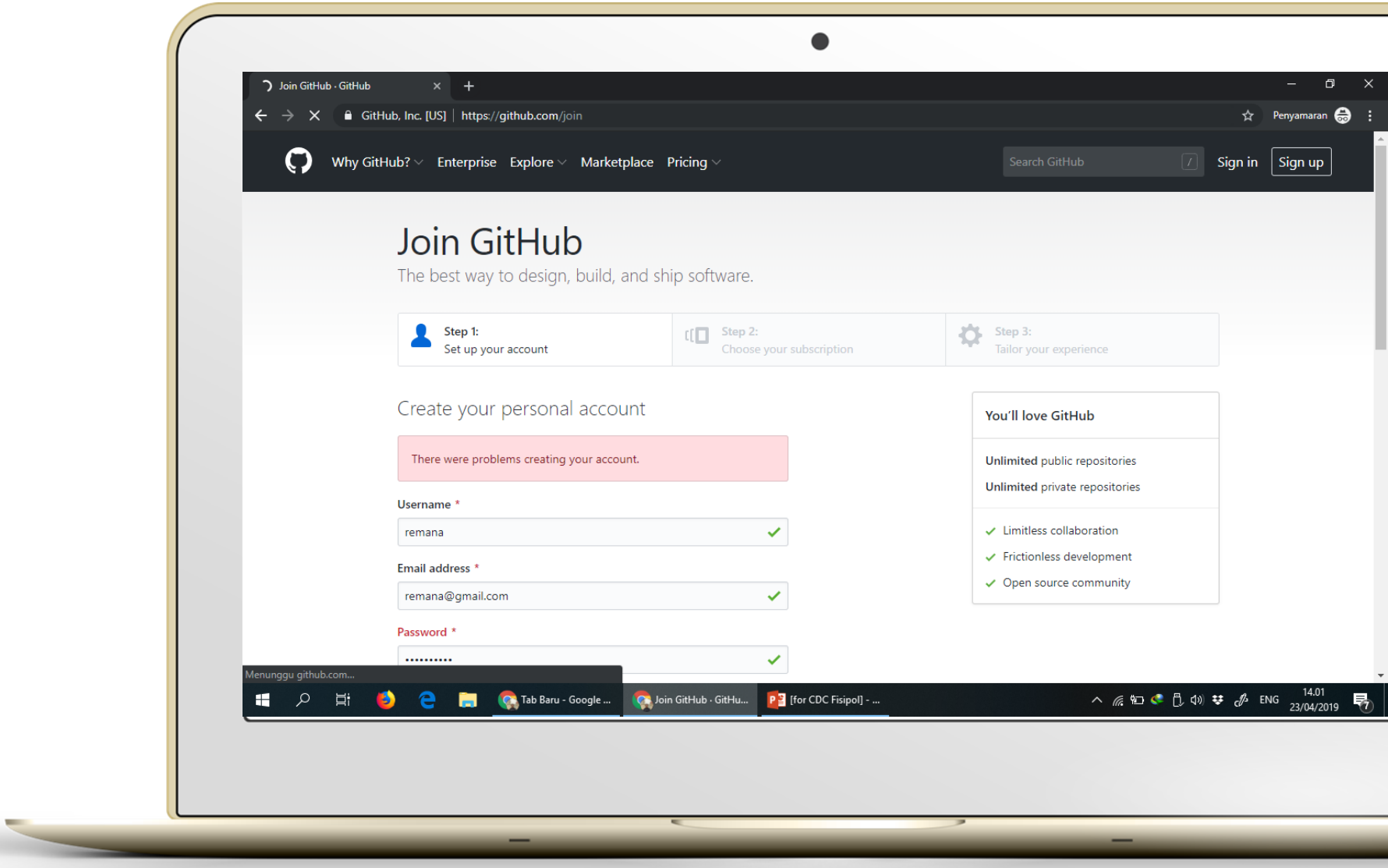
- Click “Sign up for Github” (green button)



Create your personal account

Input your:

- Username
- Email address
- Password



Choose your subscription

Choose

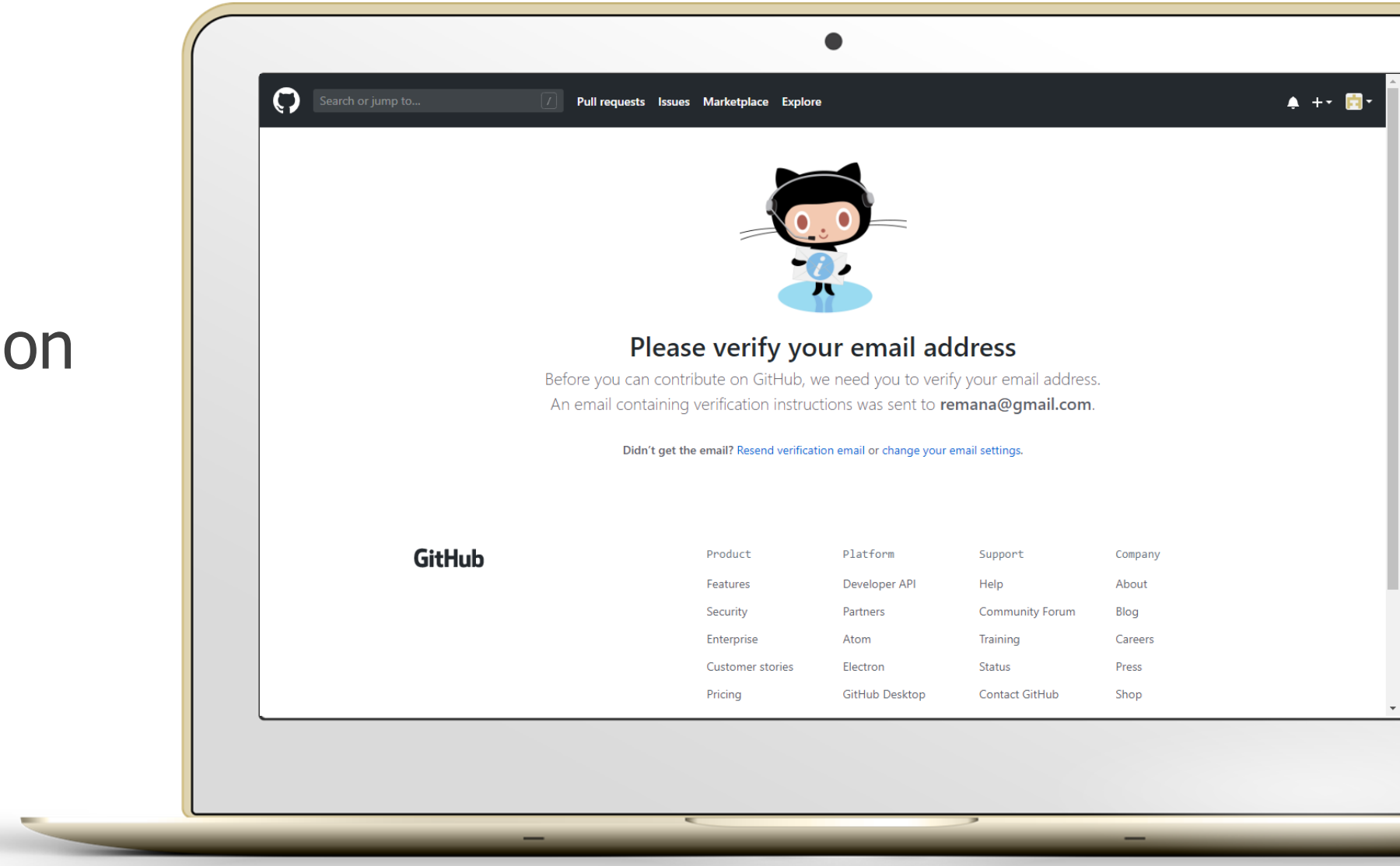
- Free (The basics of GitHub for every developer)

Tailor your experience

You could skip this step

Verify your email address

Check your email inbox for verification

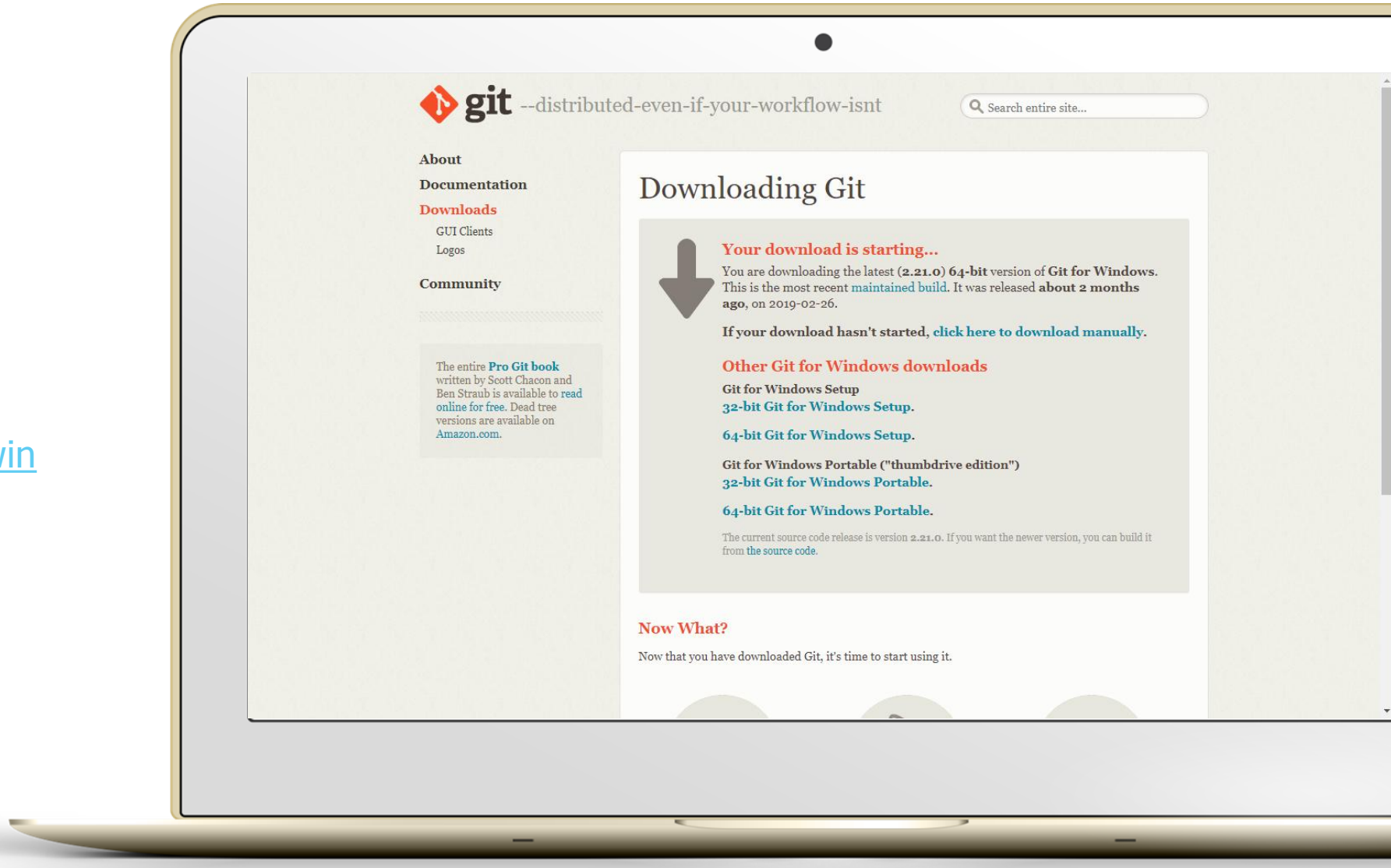


Download Git

Open this site:

https://git-scm.com/download/win

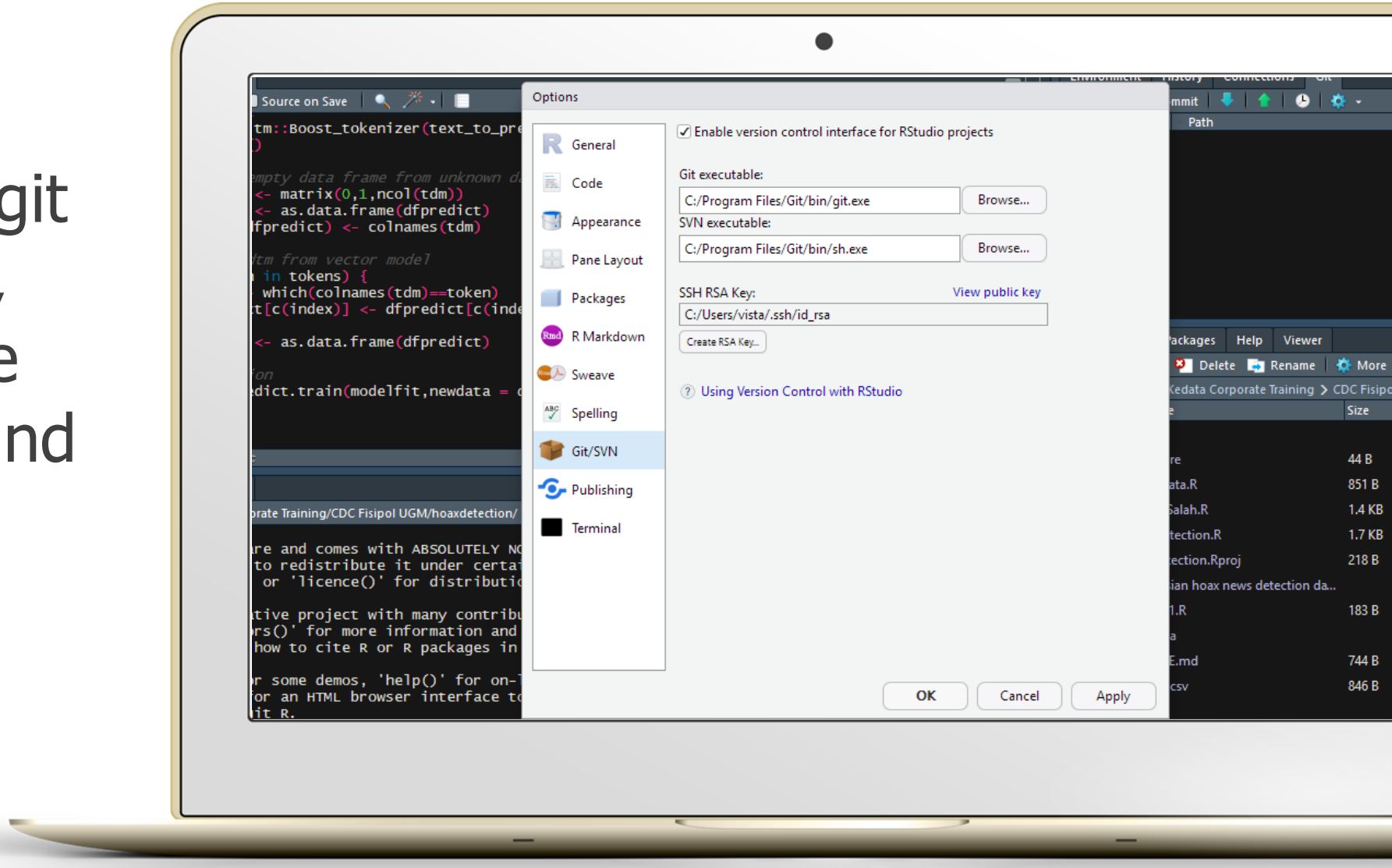
- For Windows



Integrate Git with your RStudio

Before open your git project in RStudio, you must integrate your Git location and SSH RSA key

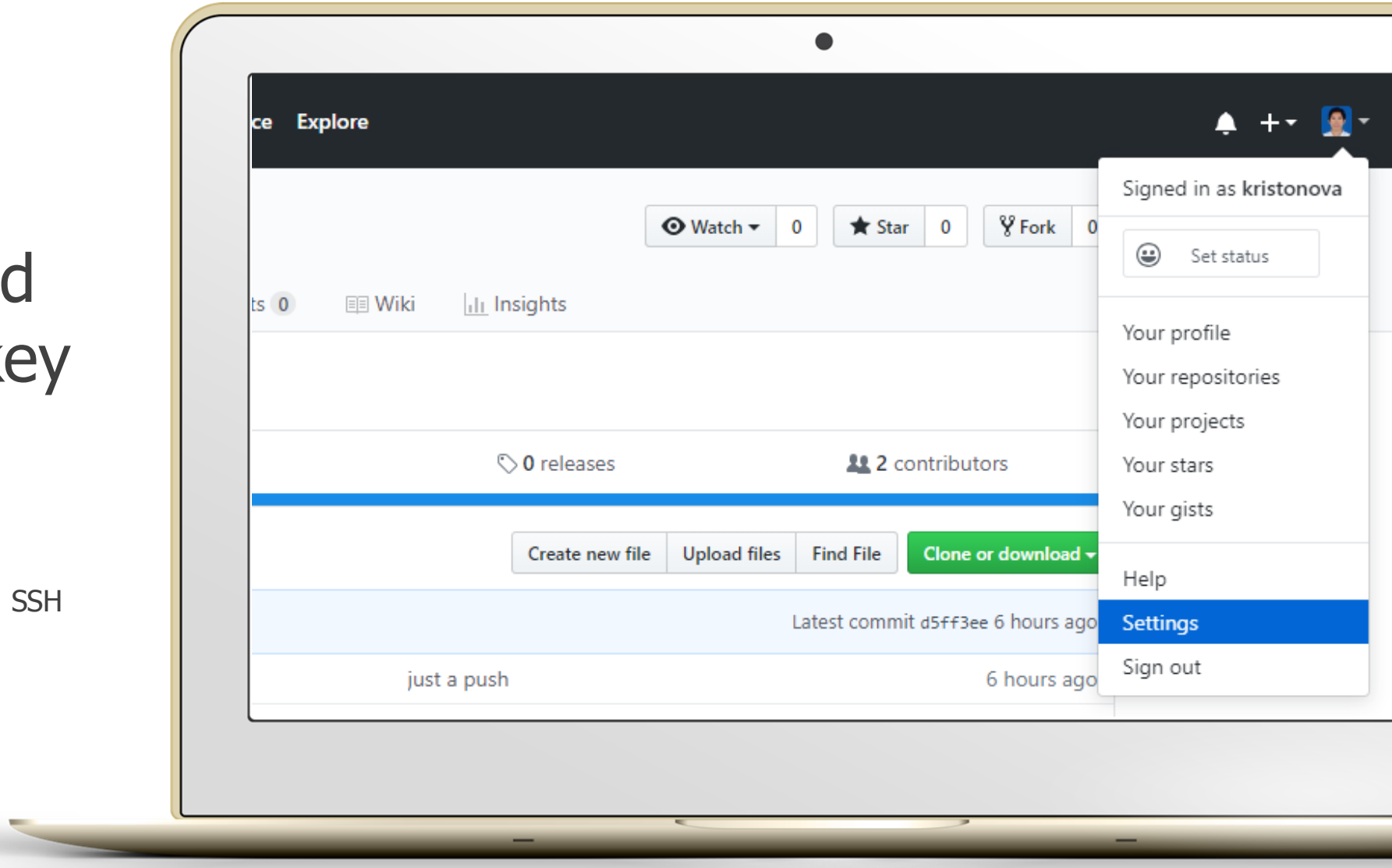
Click Tools → Global Option → Git/SVN



Integrate Git with your RStudio

Now, you must add your Github SSH key with Rstudio environment

Click on your Github Profile → Settings → SSH and GPG keys

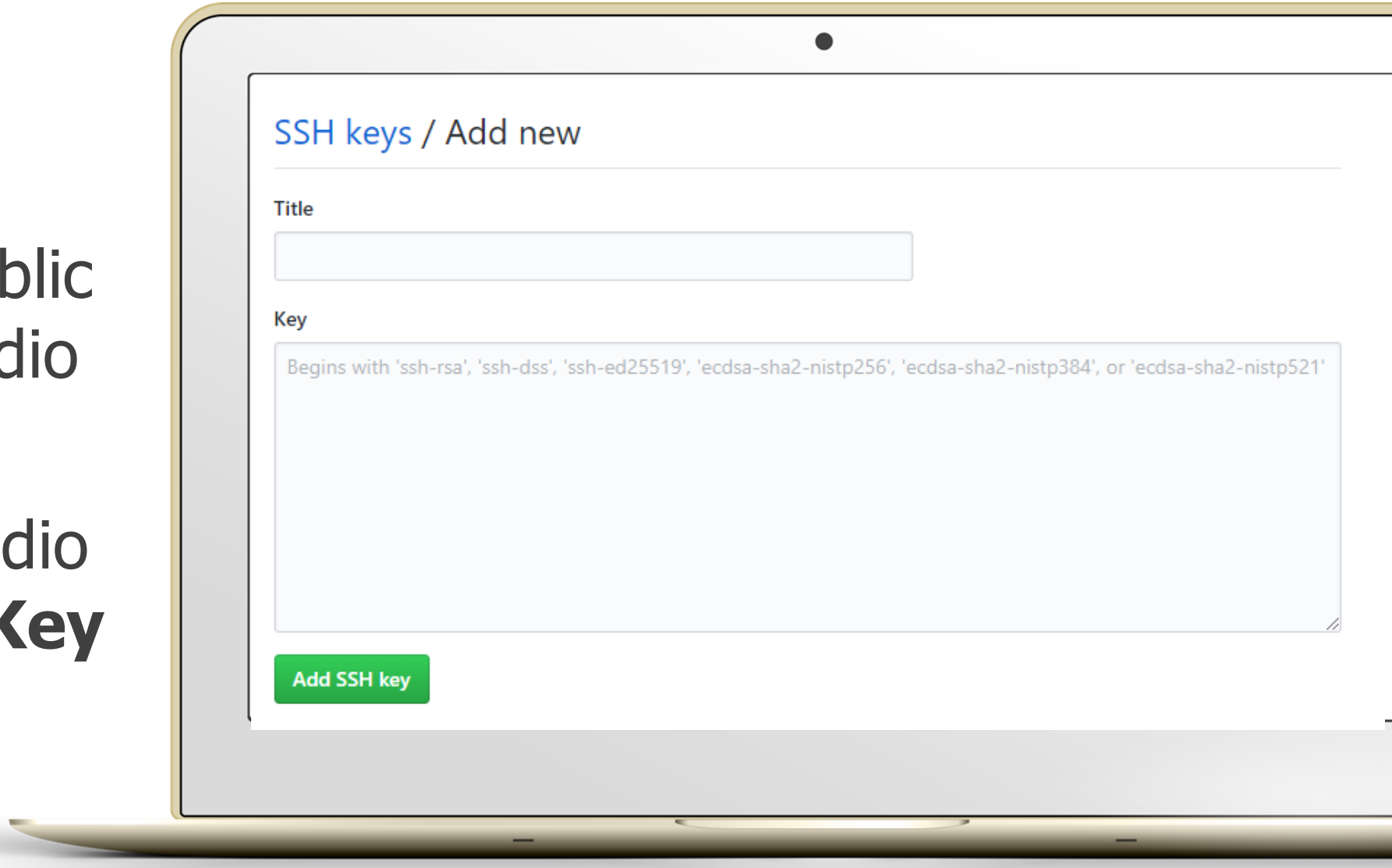


Integrate Git with your RStudio

Click on green button **"New SSH Key"**

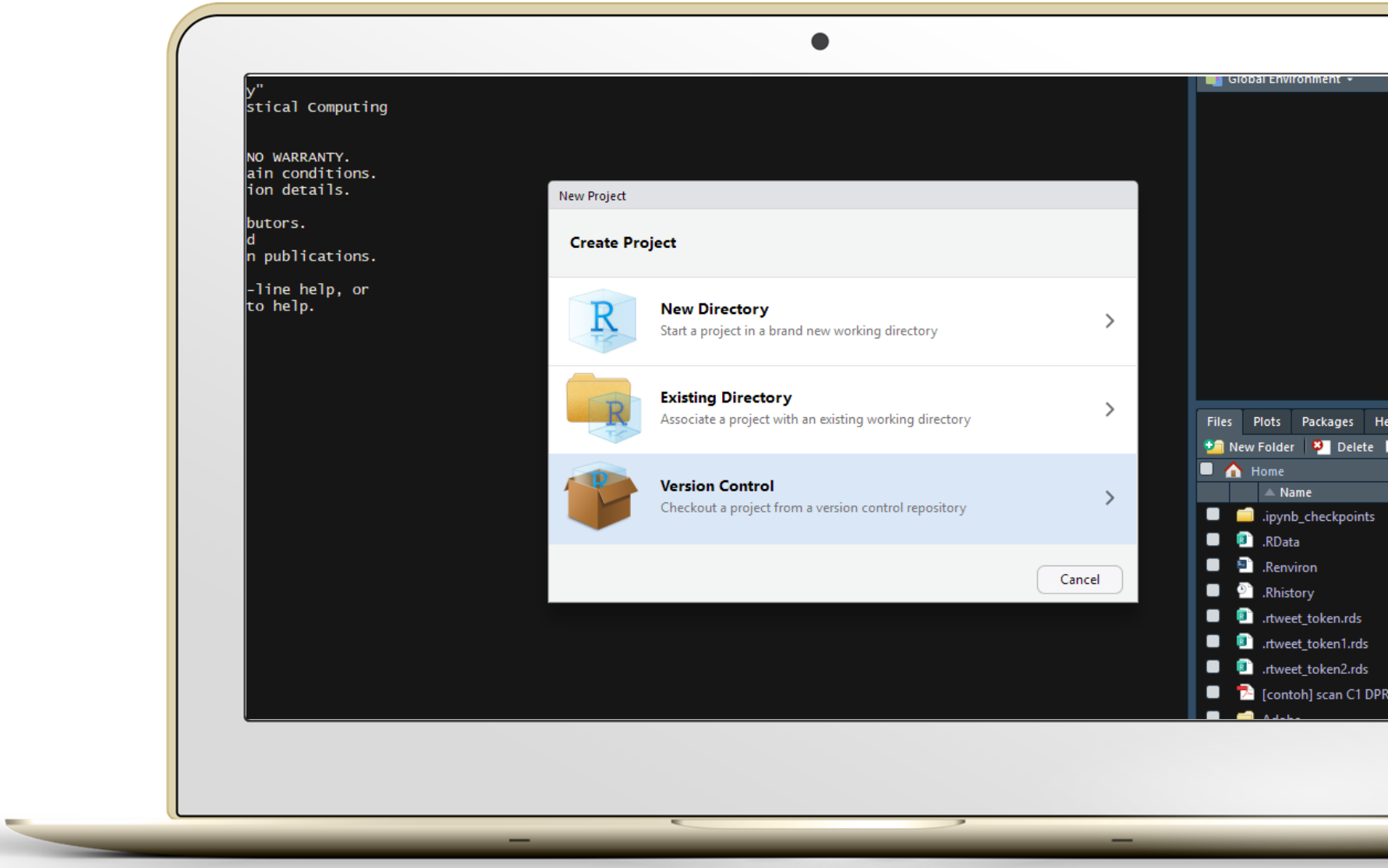
Paste SSH RSA public key from the Rstudio into Github

Then back to Rstudio and **create RSA Key**



Open your Rstudio

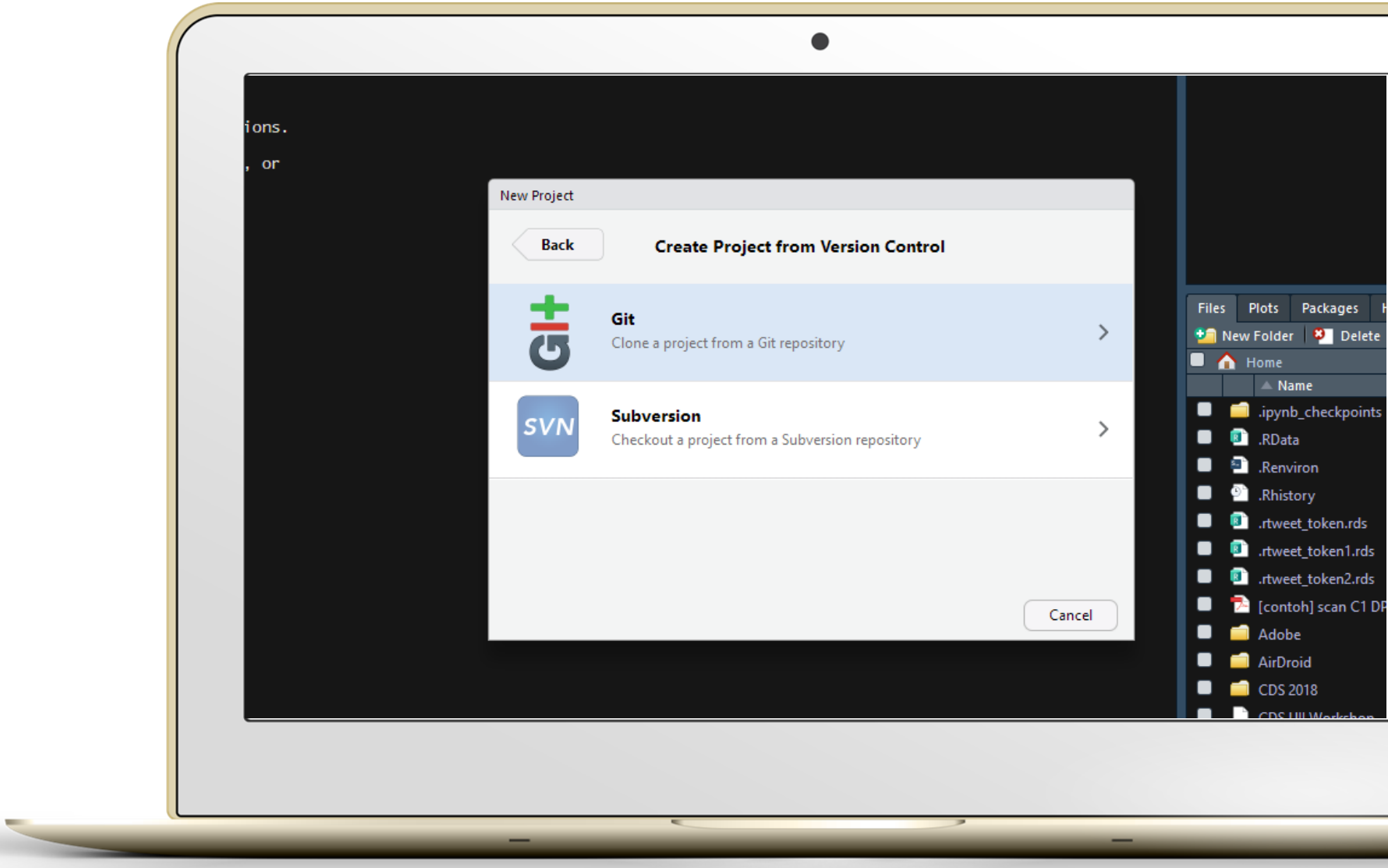
Click File → New Project → Version Control



Create Project from Version Control

Click Git

Clone a project from a Git repository

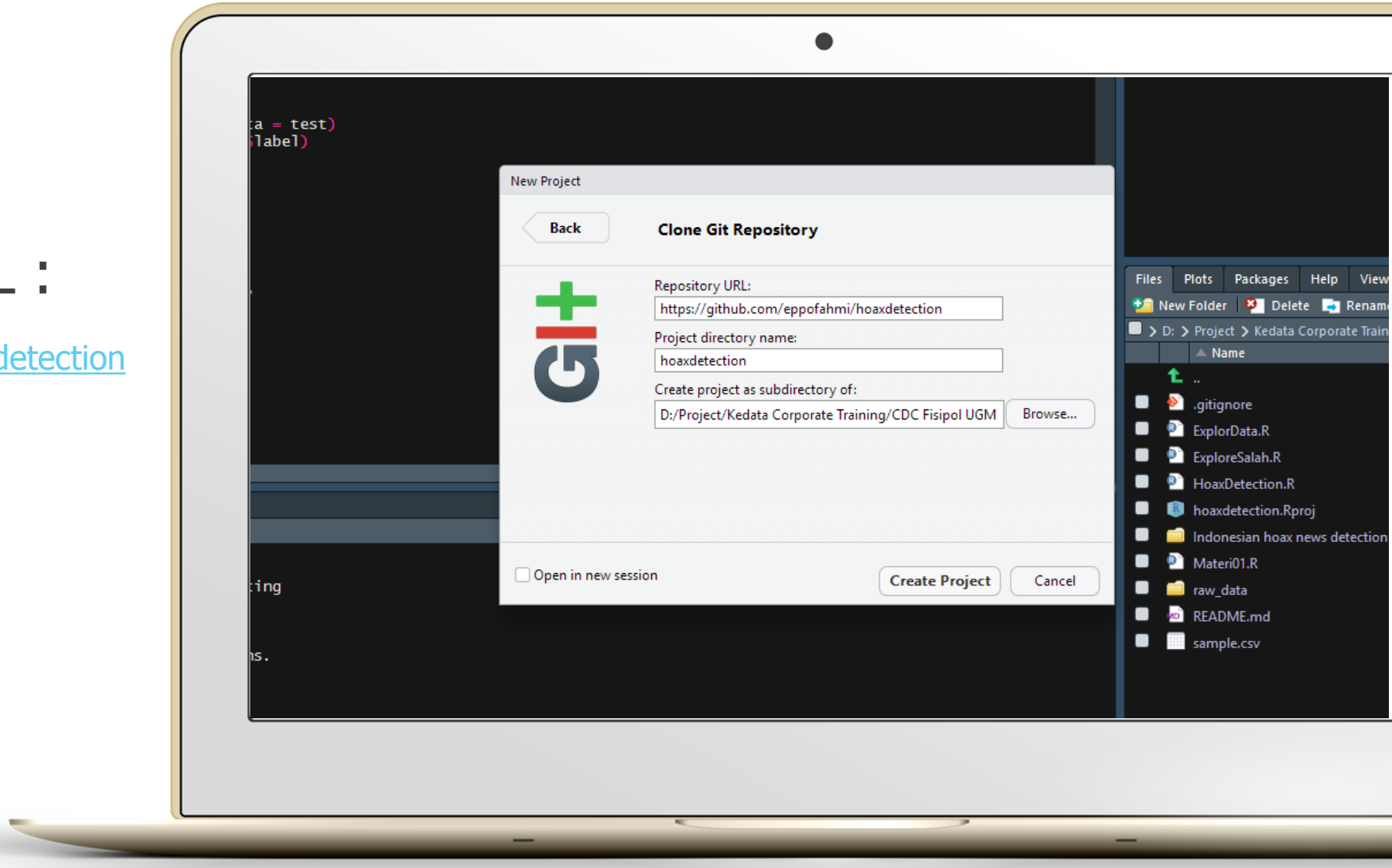


Clone Git Repository

Input Repository URL :

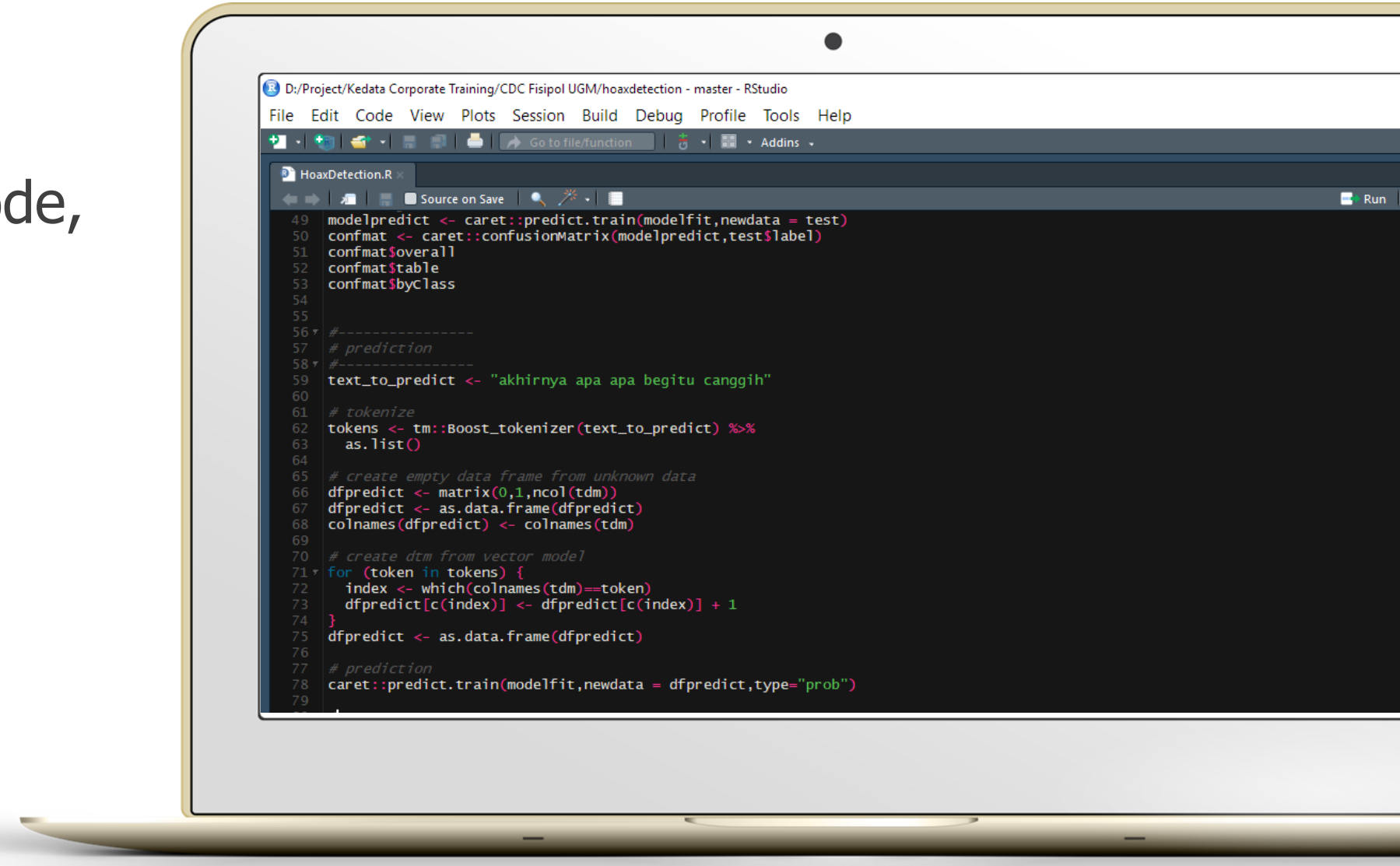
https://github.com/eppofahmi/hoaxdetection

Then click button
"**Create Project**"



Edit your code

After editing your code, click **Save** button

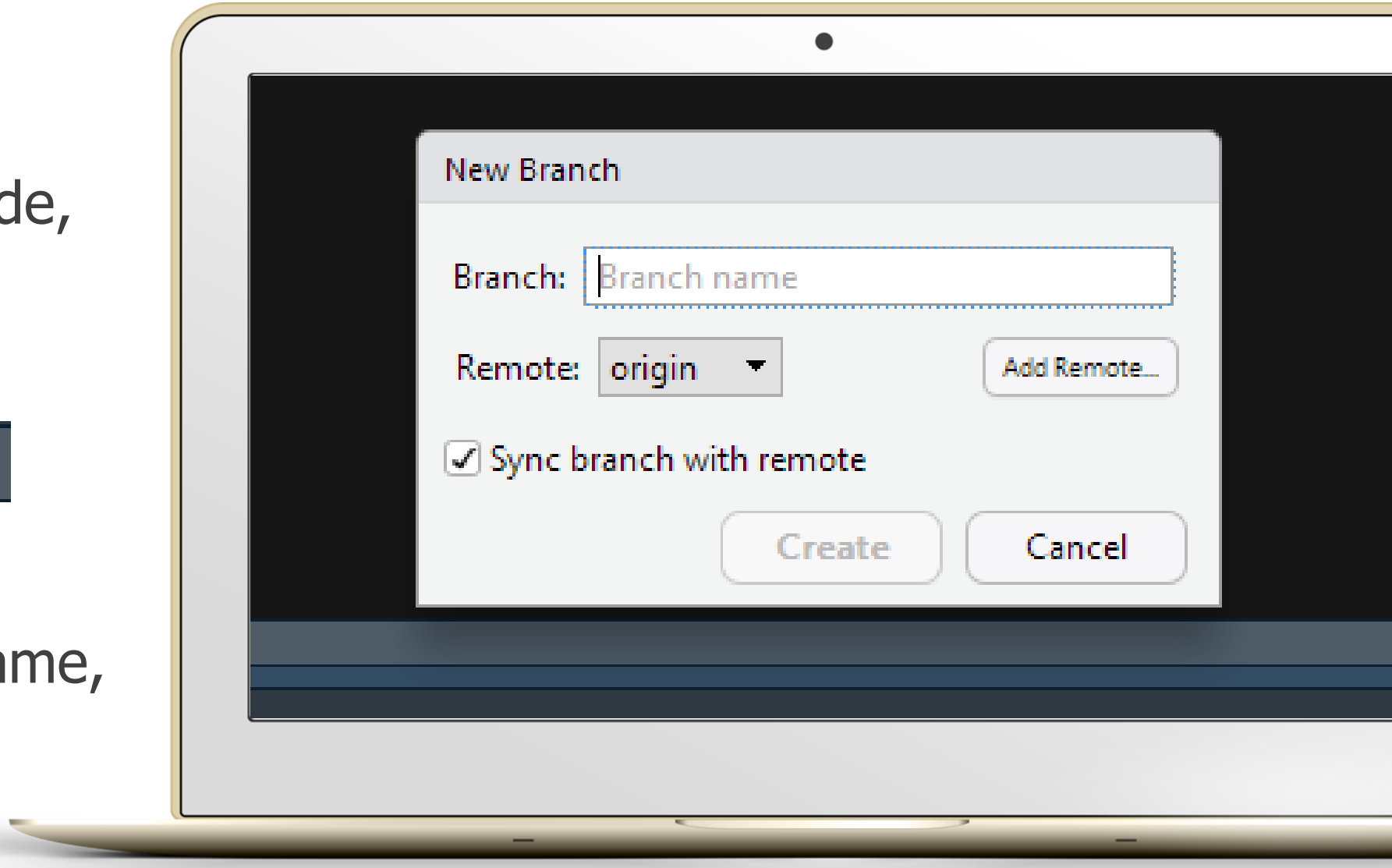


Create your branch

After editing your code, click **Save** button

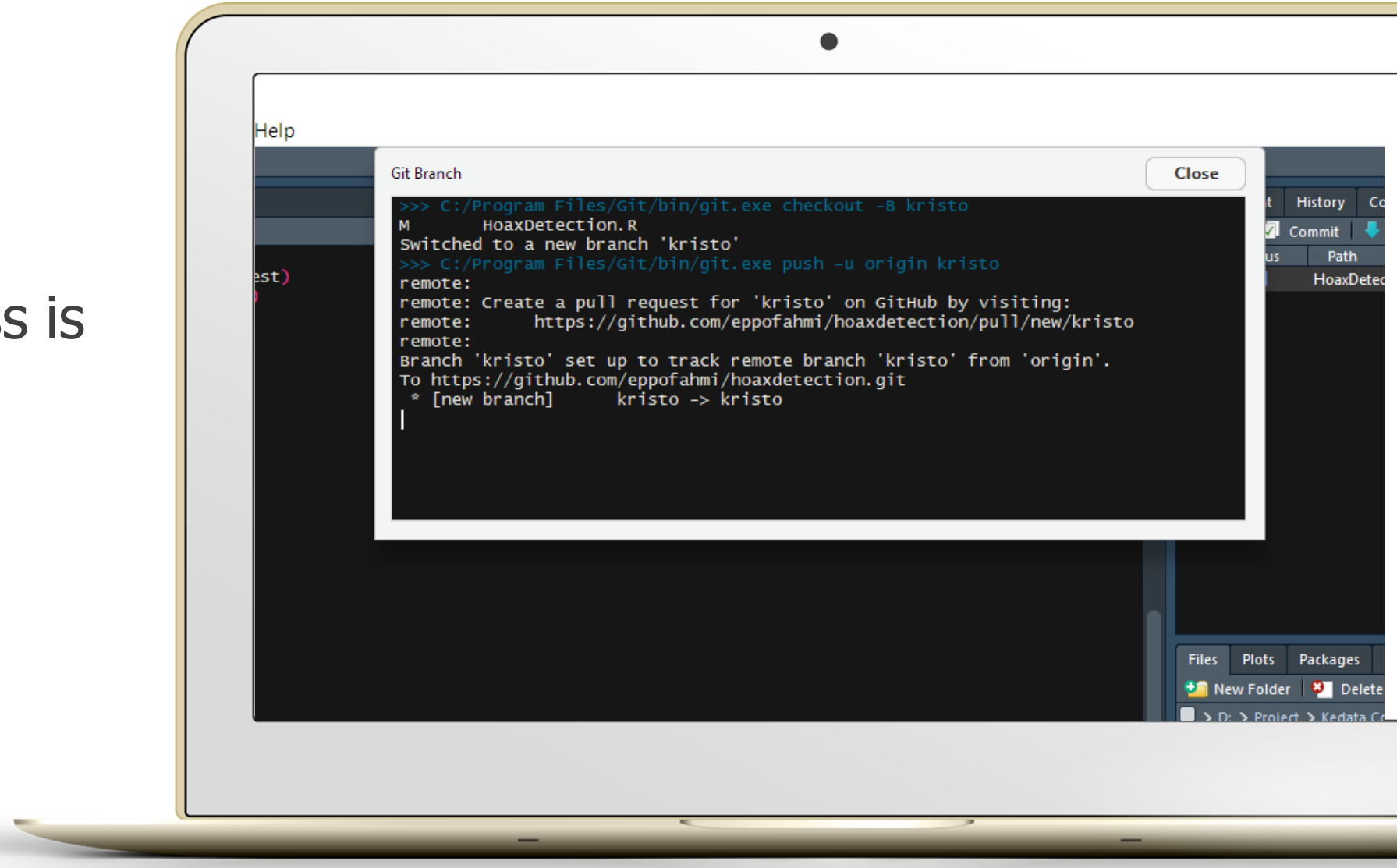
Then click button  “**New Branch**”

Write your branch name, then click **Create**



Create your branch

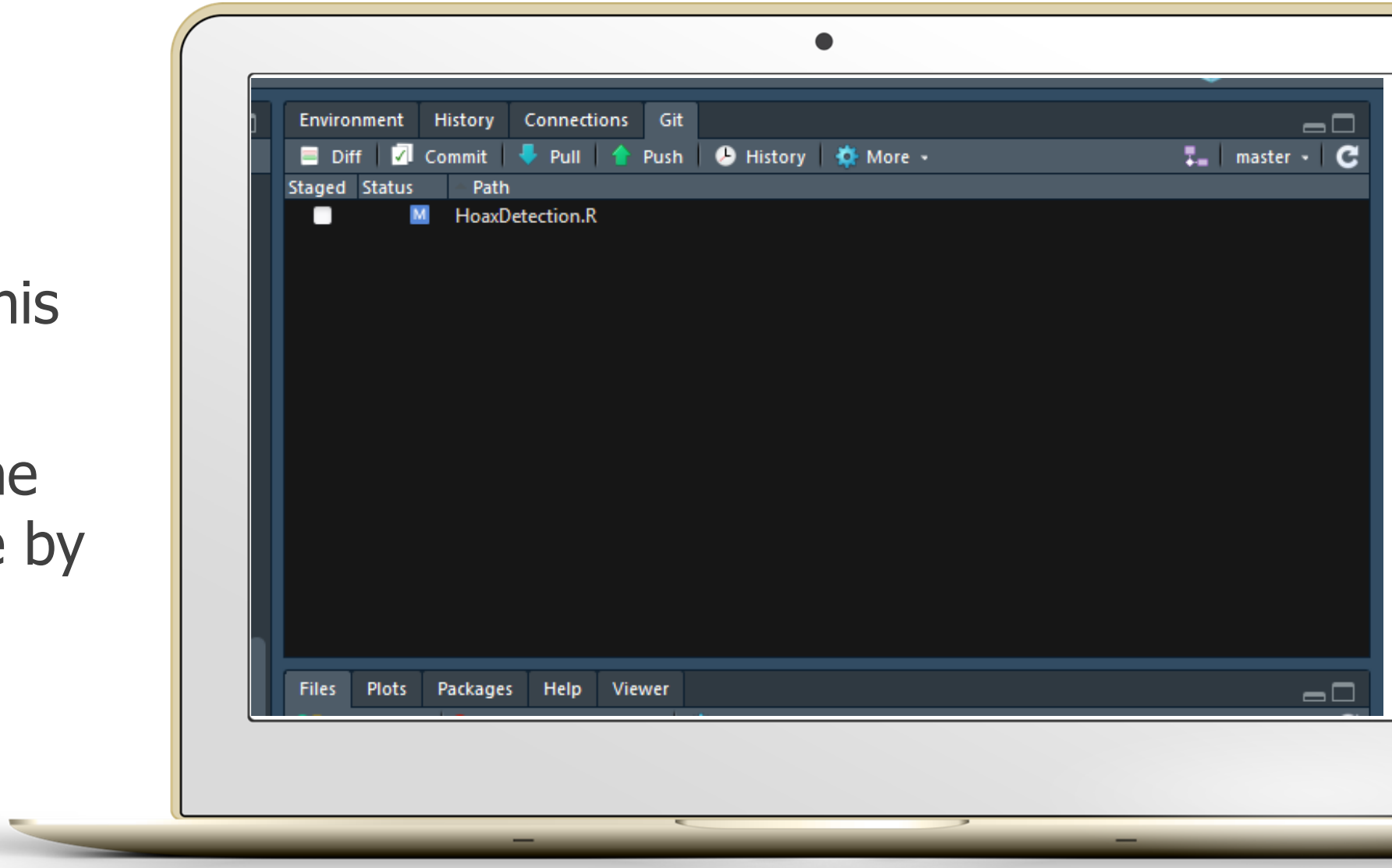
Wait until the process is finished



Commit your edit

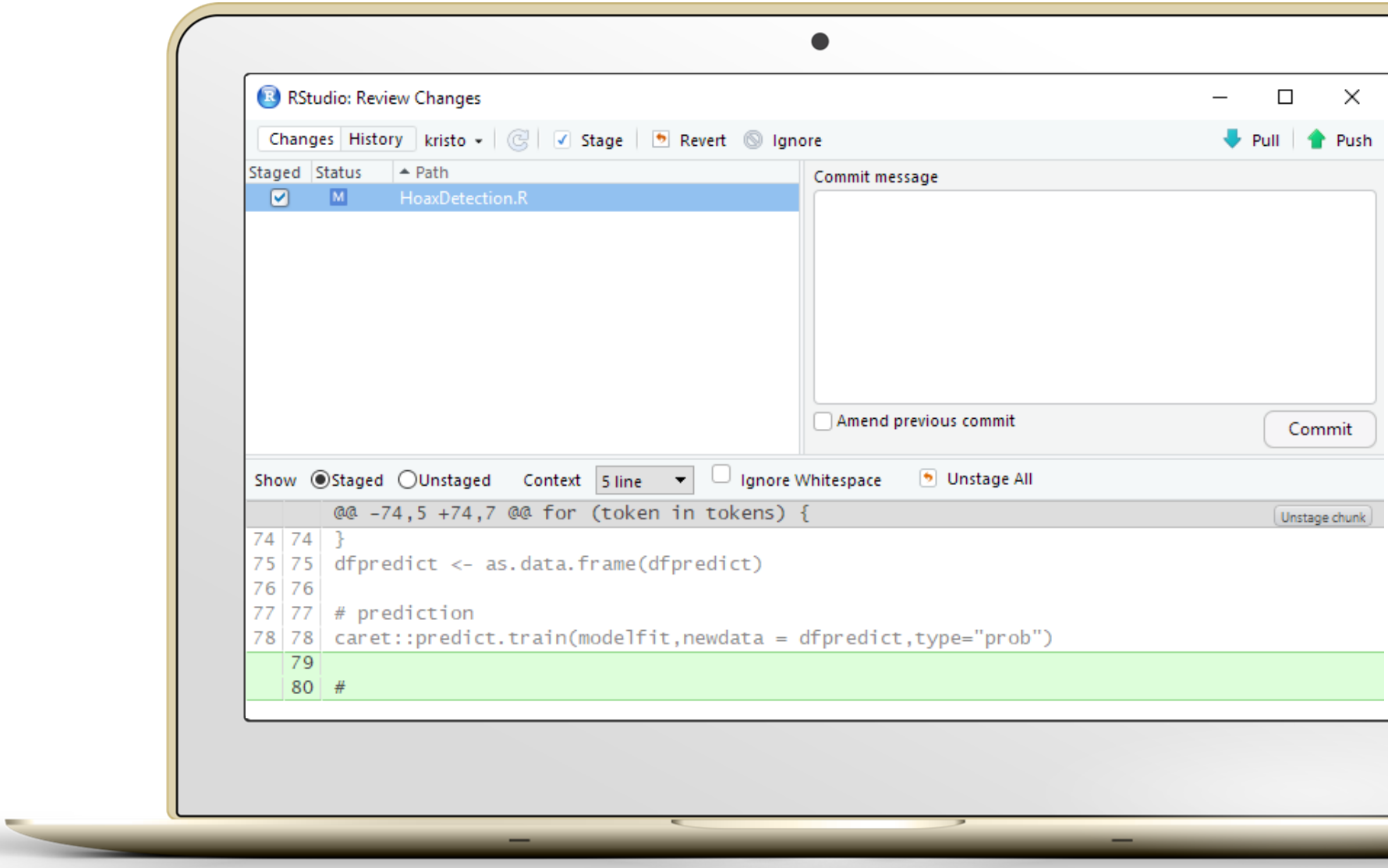
Any edits will affect this bar

You could **commit** the changes you've made by clicking the **Commit** button.



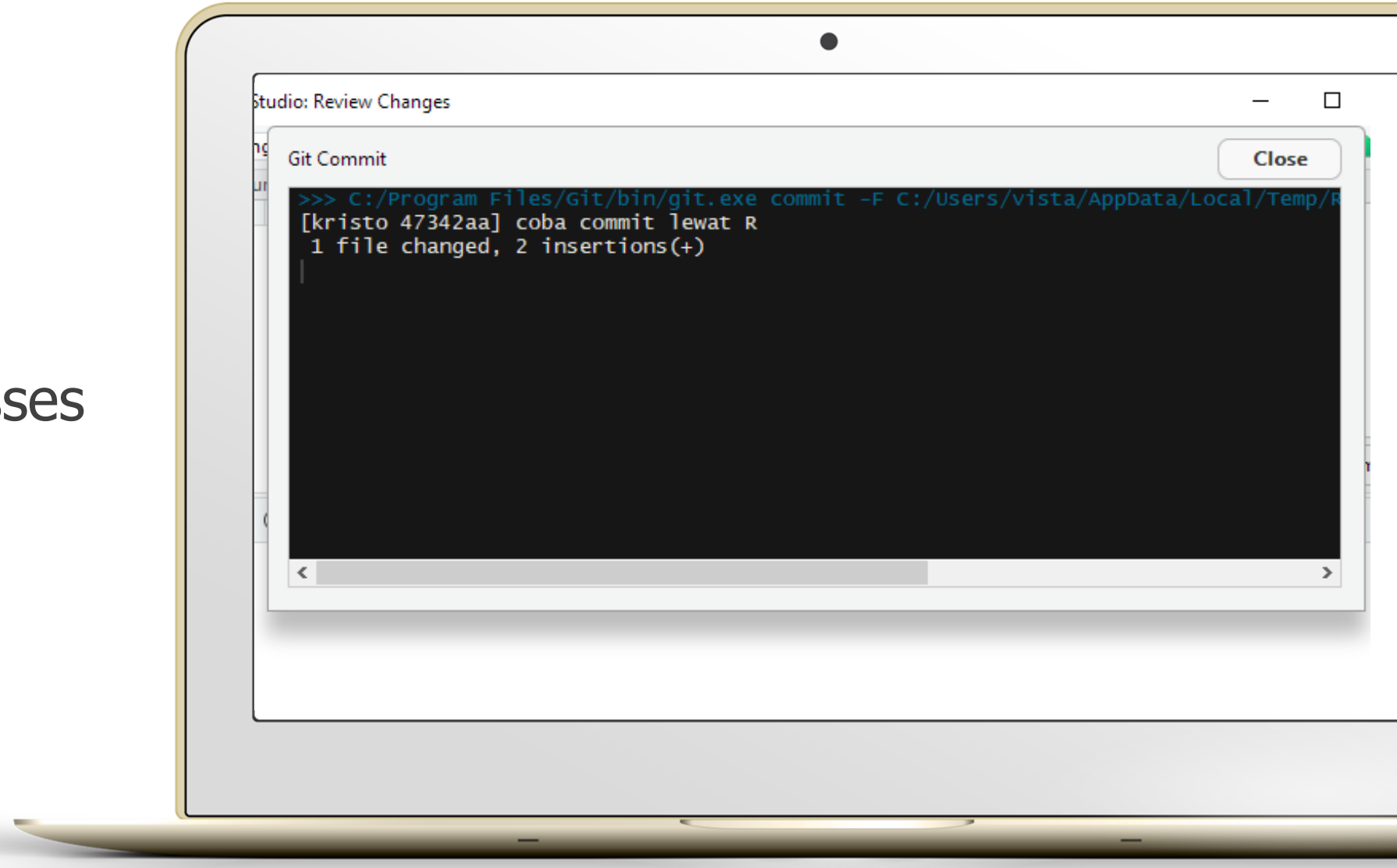
Commit your edit

Type your commit message, and click **commit**



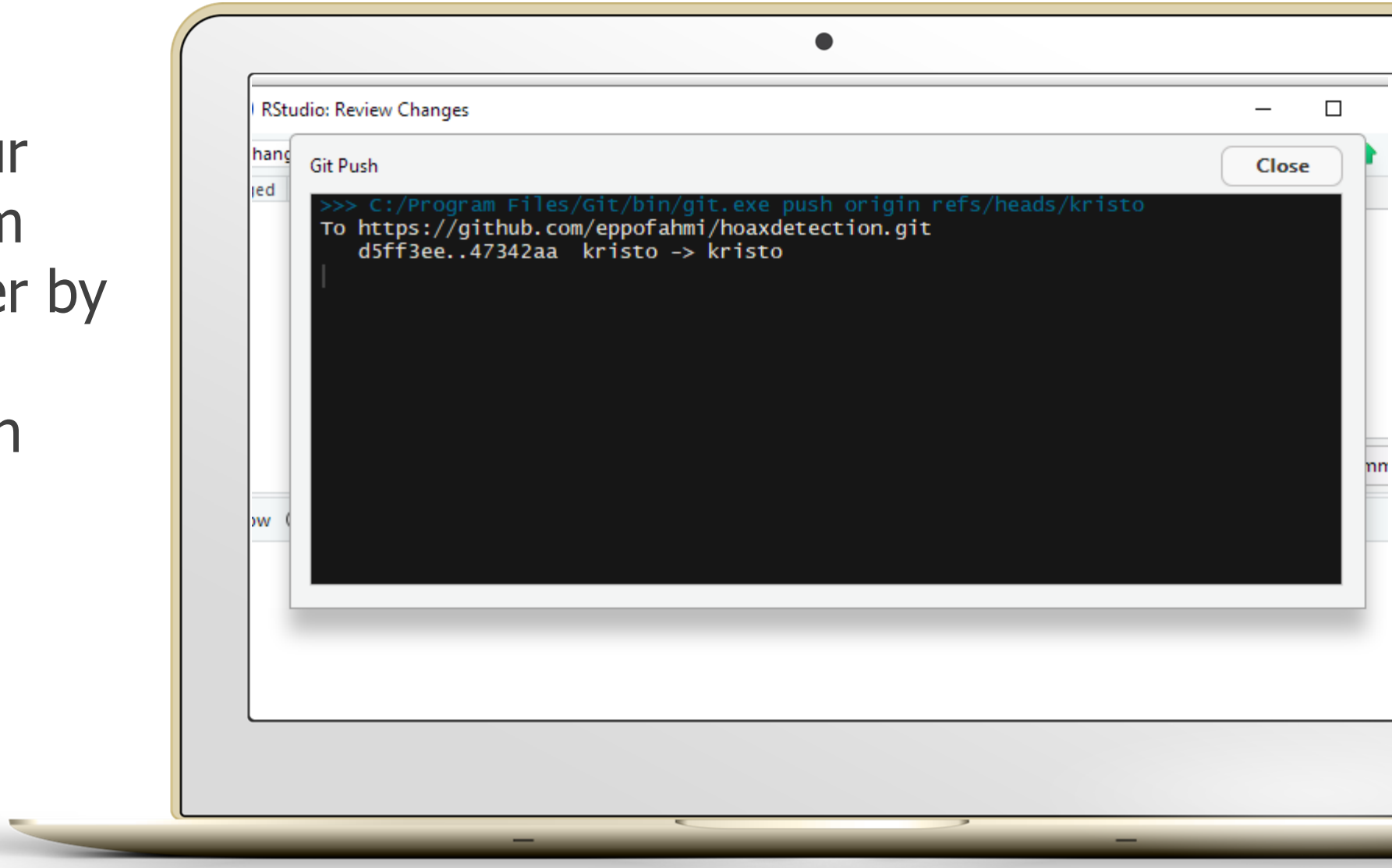
Commit your edit

Wait until the processes is finished.



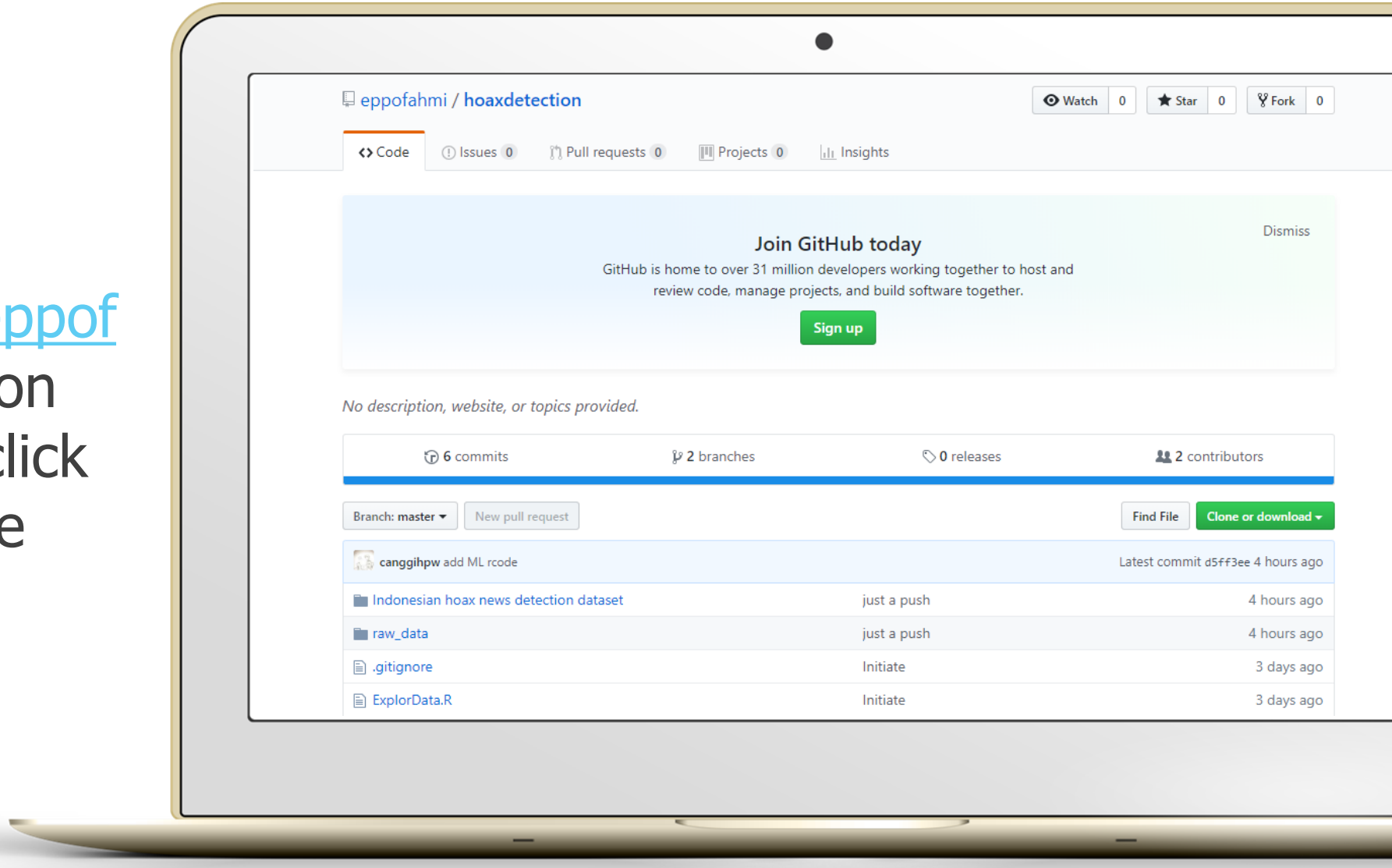
Push your commit

After committing your codes, then pull them into the Github server by clicking Push **Push** button in the upperright



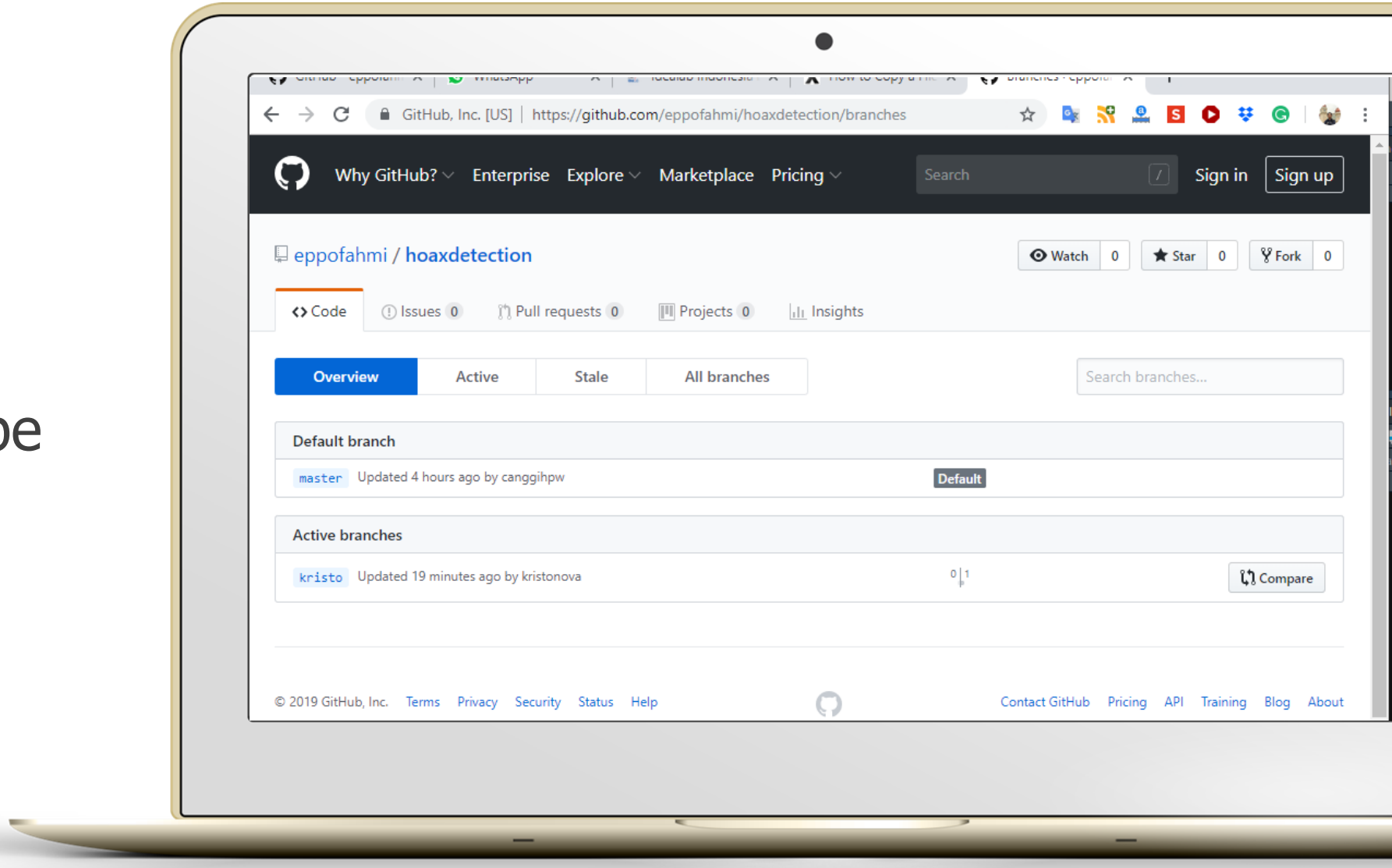
Check your push and branch

Visit link https://github.com/eppofahmi/hoaxdetection on your website. Then click branches menu in the top of the file list.



Check your push and branch

Your branch should be here



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Thank You

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